STRUCTURAL GENERAL NOTES

WITH THAT SHOWN ON THE DRAWINGS.

- 1. ARCHITECTURAL ELEVATION 100'-0" = MATCH ADJACENT BUILDING MAIN FLOOR ELEVATION (FIELD VERIFY).
- EXISTING CONSTRUCTION A. DIMENSIONS, ELEVATIONS AND DETAILS OF EXISTING CONSTRUCTION HAVE BEEN OBTAINED FROM LIMITED FIELD INVESTIGATION AND EXISTING DOCUMENTS. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS NECESSARY TO PROPERLY COORDINATE NEW AND EXISTING CONSTRUCTION, AND PRIOR TO FABRICATION AND CONSTRUCTION. NOTIFY THE ENGINEER OF ALL VARIATIONS IN THE DETAILS, DIMENSIONS, AND ELEVATIONS OF EXISTING CONSTRUCTION
 - CLEAN AND PREPARE ALL EXISTING SURFACES WHICH WILL BE IN CONTACT WITH NEW CONSTRUCTION AS INDICATED AND AS ACCEPTABLE TO ENGINEER, APPLY BONDING COMPOUND TO ALL EXISTING CONCRETE AND MASONRY SURFACES WHICH WILL BE IN CONTACT WITH NEW CONCRETE IMMEDIATELY PRIOR TO PLACEMENT. PROTECT EXISTING MATERIALS FROM DAMAGE DURING CONSTRUCTION. FURNISH AND INSTALL TEMPORARY SHORING OR BRACING AS NECESSARY TO PROVIDE SUPPORT AND
- STABILITY FOR EXISTING WALLS AND FRAMING DURING DEMOLITION AND CONSTRUCTION. FUTURE CONSTRUCTION A. STRUCTURE DESIGN INCLUDES PROVISIONS FOR SECOND STORY AND ROOF EXPANSION. MAXIMUM DESIGN LOADS
- FOR FUTURE EXPANSION ARE INDICATED IN DRAWINGS. EQUIPMENT INSTALLATION
- A. ALL OPENINGS SHOWN SHALL BE VERIFIED, AND ALL STRUCTURAL DIMENSIONS AND DETAILS PERTAINING TO EQUIPMENT INSTALLATION SHALL BE COORDINATED BY THE CONTRACTOR WITH THE ACTUAL EQUIPMENT
- B. EQUIPMENT SUPPORTS, ANCHORAGES AND OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT REQUIRED BY OTHER CONTRACT DRAWINGS, SHALL BE PROVIDED PRIOR TO PLACING CONCRETE. MECHANICAL UNITS SUPPORTED BY ROOF OR FLOOR STRUCTURE ARE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER. ALL KNOWN UNITS HAVE BEEN SHOWN ON PLAN. IF UNIT'S GEOMETRY INCREASES, OPERATING WEIGHT INCREASES, IF LOCATION CHANGES, IF ADDITIONAL UNITS ARE REQUIRED, OR STRUCTURAL CHANGES ARE REQUIRED FOR ANY REASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND COORDINATION OF ALL DETAILS PERTAINING TO THE INSTALLATION OF THE ACTUAL EQUIPMENT. DESIGN SHALL BE SUBMITTED FOR STRUCURAL ENGINEER-OF-RECORD REVIEW.

APPLICABLE SPECIFICATIONS AND CODES

CONSTRUCTION AND DESIGN SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (IBC), 2009 EDITION WITH LOCAL AMENDMENTS, AND WITH THE LATEST EDITION OF THE APPLICABLE SPECIFICATIONS AND THE REQUIREMENTS NOTED AS FOLLOWS:

ASCE [7-05] "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"

DESIGN LOADS

- DESIGN LOADS AND LOAD APPLICATIONS ARE IN ACCORDANCE WITH BUILDING CODE. BUILDING CATEGORY FLOOR LOADS A. UNIFORM FLOOR LIVE LOADS OFFICE BUILDINGS (FILE & COMPUTER ROOMS) OFFICE BUILDINGS (LOBBIES & 1ST FLOOR COORIDORS) 100 PSF & 2,000 LBS CONCENTRATED LOAD OFFICE BUILDINGS (OFFICES + PARTITION LOAD) 50+15 PSF & 2,000 LBS CONCENTRATED LOAD iv) FILE STORAGE & COMPUTER ROOMS MECHANICAL ROOMS OFFICE BUILDINGS (CORRIDORS ABOVE FIRST FLOOR) 80 PSF & 2,000 LBS CONCENTRATED LOAD
- viii) FLOOR LIVE LOAD REDUCTIONS APPLIED IN ACCORDANCE WITH THE BUILDING CODE. B. UNIFORM FLOOR DEAD LOADS PRECAST PLANK FLOOR SYSTEMS (INCLUDES CARPET, 2" CONCRETE TOPPING, 8" PRECAST PLANK & 5/8" THICK GYPSUM CEILING BELOW)
- CEILING DEAD LOADS (MECH & ELEC) (INCLUDES CEILING FRAMING, TYPICAL MECHANICAL & ELECTRICAL ELEMENTS)
- BASIC GROUND SNOW LOAD EXPOSURE FACTOR iii) THERMAL FACTOR

vii) STAIRS, LANDINGS & EXITS

A. SNOW LOAD CRITERIA

Ct = 1.0 (HEATED STRUCTURES) Ct = 1.1 (COLD VENTILATED AREAS IMPORTANCE FACTOR ls = 1.2B. MINIMUM ROOF SNOW LOAD 42 PSF (HEATED STRUCTURES) 46 PSF (COLD VENTILATED ROOF SYSTEMS)

Ce = 1.0 (PARTIALLY EXPOSED, EXPOSURE C)

- C. DRIFT SURCHARGE LOADS IN ACCORDANCE WITH ASCE 7. D. FLAT ROOF DEAD LOAD EPDM ROOF
- (INCLUDED EPDM ROOFING AND 8" PRECAST PLANK, BALLAST NOT INCLUDED IN DESIGN) CEILING DEAD LOAD (MECH & ELEC) (INCLUDES CEILING FRAMING, TYPICAL MECHANICAL & ELECTRICAL ELEMENTS)
- iii) CEILING SPECIALITY DEAD LOADS (IT AREA) SEE DRAWING S203 iv) FUTURE DESIGN LOADS E. SLOPED ROOF DEAD LOAD SHINGLED ROOF
- (INCLUDES SHINGLES, PLYWOOD SHEATHING, TRUSSES, INSULATION & 5/8" THICK GYPSUM CEILING BELOW) ii) CEILING DEAD LOAD (MECH & ELEC)
- (INCLUDES CEILING FRAMING, TYPICAL MECHANICAL & ELECTRICAL ELEMENTS) ROOF SUPPORTED MISC. EQUIPMENT SEE SPECIAL LOADS BELOW OR NOTED ON PLANS

WIND FORCES A. BASIC WIND SPEED B. EXPOSURE CATEGORY C. IMPORTANCE FACTOR

TRIBUTARY AREA (SQ. FT.)

COMPONENT AND CLADDING WIND PRESSURES FOR FLAT ROOFS (PSF)

	0-10	10-20	20-50	50-100							
1	8.3 7.8		7.1	6.5							
	-20.3 -19.8		-19.1	-18.6							
2	8.3 -34.1 NA NA	2 -34.1 -30.7 2' NA NA		2		7.1 -25.5	6.5 -22.1				
2'											
3	3 8.3		7.1	6.5							
	-51.3		-30.7	-22.1							
3'	NA	NA	NA	NA							
	NA	NA	NA	NA							
4	18.6	17.1	16.3	15.5							
	-20.2	-19.4	-18.6	-17.1							
5	18.6	17.1	16.3	15.5							
	-24.8	-23.3	-21.7	-19.4							

COMPONENT AND CLADDING WIND PRESSURES FOR GABLE ROOFS (PSF)

COMI ONLINI	1110 00 1001110	VIIID I ILESSOIL	LS TON GABLE IN					
	TRIBUTARY AREA (SQ. FT.)							
ZONES	0-10	10-20	20-50	50-100				
1	18.6	18.1	17.4	16.9				
	-20.3	-19.2	-18.0	-16.9				
2	18.6	18.1	17.4	16.9				
	-23.8	-22.6	-21.5	-20.3				
2 OVERHANG	NA	NA	NA	NA				
	-37.6	-36.4	-35.3	-34.1				
3	18.6	18.1	17.4	16.9				
	-23.8	-22.6	-21.5	-20.3				
3 OVERHANG	NA	NA	NA	NA				
	-37.6	-36.4	-35.3	-34.1				
4	20.3	18.6	17.7	16.9				
	-22.1	-21.2	-20.3	-18.6				
5	20.3	18.6	17.7	16.9				
	-27.2	-25.5	-23.8	-21.2				

5 PSF LATERAL

SEISMIC CRITERIA

A. SEISMIC DESIGN CATEGORY B. IMPORTANCE FACTOR I = 1.50SPECIAL LOADS A. MECHANICAL EQUIPMENT LOADS ACTUAL OPERATING LOADS

8. ADDITIONAL LOADS REFERENCED ON THE STRUCTURAL DRAWINGS.

B. PARTITION AND INTERIOR WALL LIVE LOAD

CONSTRUCTION LOADS

- STRUCTURES HAVE BEEN DESIGNED FOR DEAD LOADS AND THE DESIGN LOADS NOTED ABOVE. PROVIDE TEMPORARY BRACING, SHORING, OR OTHER SUPPLEMENTAL SUPPORT DURING CONSTRUCTION AS NECESSARY TO PROTECT THE STRUCTURES FROM EXCESSIVE CONSTRUCTION LOADS.
- DURING ERECTION OF THE STRUCTURE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY BRACING TO WITHSTAND ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING LATERAL LOADS, STOCKPILES OF MATERIALS, AND EQUIPMENT. SUCH BRACING SHALL BE LEFT IN PLACE AS LONG AS REQUIRED FOR SAFETY AND UNTIL
- ALL FRAMING, INCLUDING ROOF STRUCTURE, IS IN PLACE. SUPPORTING FLOORS, ROOFS, STRUCTURAL SLABS, AND BASIN TOP SLABS SHALL BE PLACED PRIOR TO BACKFILLING AGAINST WALLS OR FILLING OF BASINS. OTHERWISE PROVIDE SUFFICIENT WALL BRACING.

LATERAL FORCE RESISTING SYSTEM

1. LATERAL PRESSURES ON THE EXTERIOR WALLS, WHICH SPAN VERTICALLY, ARE TRANSFERRED TO THE FLOOR AND ROOF DIAPHRAGMS. COLLECTED LATEARL FORCES BY THE DIAPHRAGMS ARE TRANSFERRED TO THE FOUNDATION SYSTEM BY SHEAR WALLS BY A COMBINATION OF SHEAR AND ROTATIONAL COUPLE (UPLIFT AND DOWNWARD) FORCES.

FOUNDATIONS ARE DESIGNED IN ACCORDANCE WITH SOIL INVESTIGATION MADE BY

2. MINIMUM FROST COVER FROM GRADE TO BOTTOM OF FOOTING IS 48 INCHES UNLESS NOTED OTHERWISE (60 INCHES IN

- UNHEATED AREAS) SHALLOW SPREAD FOUNDATION DESIGN CRITERIA MAXIMUM ALLOWABLE NET SOIL BEARING PRESSURE 2,000 PSF LATERAL SOIL PRESSURE (EQUIVALENT FLUID PRESSURE) 60 PCF
- 4. SHALLOW SPREAD FOUNDATION SYSTEM A. FOOTINGS TO BEAR ON COMPACTED NATIVE SOILS OR ENGINEERED FILL. ALL TOPSOIL, FILL AND OTHER UNSUITABLE MATERIAL SHALL BE REMOVED. THE GENERAL CONTRACTOR TO PROVIDE GEOTECHNICAL SERVICES TO INSPECT THE EXCAVATED AREA
- SATISFACTORY TO ACHIEVE DESIGN BEARING PRESSURE. D. AVOID EXCESSIVE WETTING OR DRYING OF THE FOUNDATION EXCAVATIONS DURING CONSTRUCTION. BACKFILL AGAINST WALLS WITH FILL ON BOTH SIDES SHALL BE COMPACTED IN EQUAL LIFTS EACH SIDE OF WALL. WALLS BACKFILLED FROM ONE SIDE ONLY SHALL HAVE ALL SUPPORTING SLABS, PERMANENT FRAMING OR TEMPORARY BRACING IN PLACE PRIOR TO PLACEMENT OF BACKFILL.

TO ENSURE ALL MATERIALS REQUIRING REMOVAL HAVE BEEN REMOVED AND COMPACTION OF BACKFILL IS

CAST-IN-PLACE CONCRETE

- CONCRETE CONSTRUCTION SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S (ACI) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318) AND "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS" CONCRETE CONSTRUCTION IN HOT WEATHER SHALL CONFORM TO ACI 305. CONCRETE CONSTRUCTION IN COLD WEATHER SHALL CONFORM TO ACI 306.
- 4. DETAILING, FABRICATION AND PLACEMENT OF REINFORCEMENT SHALL CONFORM TO ACI 315. MATERIALS A. CONCRETE STRUCTURAL CAST-IN-PLACE f`c = 4,000 PSI EXTERIOR WALKS, CURBS, RAMPS f`c = 4,000 PSI iii) CONCRETE FILL f`c = 3,000 PSI

NOT BE PERMITTED UNLESS AUTHORIZED BY ENGINEER.

- B. REINFORCING MATERIALS REINFORCING BARS ASTM A615, GRADE 60 WELDED WIRE FABRIC ASTM A185. FURNISH IN SHEETS ONLY iii) THE USE OF POLYPROPYLENE FIBERS AS A SUBSTITUTION TO WELDED WIRE FABRIC IS PROHIBITED. ALL BENT REINFORCING BARS SHALL BE SHOP FABRICATED ONLY. RE-BENDING OR WELDING OF REINFORCEMENT SHALL
- 7. END HOOKS IN REINFORCING BARS, SHOWN ON THE STRUCTURAL DRAWINGS BUT NOT DIMENSIONED, SHALL CONFORM 8. CONCRETE COVER OVER REINFORCEMENT SHALL BE 2 INCHES CLEAR, EXCEPT FOR THE FOLLOWING, UNLESS OTHERWISE
- A. CONCRETE PLACED AGAINST AND PERMANENTLY IN CONTACT WITH EARTH CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH OR WATER BEAMS, COLUMNS 1.5 INCHES CLEAR WALLS 1.5 INCHES CLEAR SLABS 0.75 INCHES CLEAR REINFORCEMENT SPLICE REQUIREMENTS
- LAP WELDED WIRE FABRIC ONE FULL MESH AT SPLICES. REINFORCEMENT SPLICES NOT PERMITTED EXCEPT AS DETAILED OR AUTHORIZED BY ENGINEER. LAP REINFORCING BARS THE FOLLOWING MINIMUMS AT ALL SPLICES, CORNERS AND INTERSECTIONS, UNLESS OTHERWISE INDICATED. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES ON CONCRETE CAST BELOW THE BAR.

BAR SIZE	REGULAR BARS	TOP BARS
#3	1' - 4"	1' - 10"
#4	1' - 9"	2' - 5"
#5	2' - 2"	3' - 0"
#6	2' - 7"	3' - 7"
#7	3' - 3"	4' - 7"
#8	4' - 3"	6' - 0"
#9	5' - 5"	7' - 7"
#10	6' - 10"	9' - 7"

- D. STAGGER ADJACENT REINFORCEMENT LAP SPLICES IN WALLS 18 INCHES MINIMUM. BEAM AND CONTINUOUS SLAB REINFORCEMENT
- SPLICE TOP REINFORCEMENT AT CENTERS OF SPAN BETWEEN SUPPORTS. SPLICE BOTTOM REINFORCEMENT AT SUPPORTS.
- TERMINATE BEAM'S TOP REINFORCEMENT WITH STANDARD HOOK AT END OF CANTILEVER OR DISCONTINUOUS BEAMS. 10. PROVIDE BAR SUPPORTS TO PROPERLY SECURE AND SUPPORT REINFORCING BARS. IN ADDITION TO NORMAL
- ACCESSORIES PROVIDE #3 STANDEES AT 48 INCHES O.C. TO SUPPORT TOP REINFORCEMENT IN BASE SLAB, AND #3 "U" OR "Z" SHAPE SPACERS AT 72 INCHES O.C. EACH WAY IN WALLS WITH TWO CURTAINS OF REINFORCEMENT. 11. DOWELS, PIPES AND OTHER INSTALLED MATERIALS AND ACCESSORIES SHALL BE HELD SECURELY IN POSITION DURING CONCRETE PLACEMENT. ALL REINFORCEMENT IS TO BE PLACED AND SECURED PRIOR TO PLACEMENT OF CONCRETE,
- UNLESS OTHERWISE STATED. DOWELS SHALL BE IN PLACE, NOT INSERTED, WHILE CONCRTE IS IN A PLASTIC STATE. 12. REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY PIPE, PIPE FLANGE OR METAL PART EMBEDDED IN CONCRETE. PROVIDE 2 INCH CLEARANCE IN ALL CASES UNLESS OTHERWISE INDICATED. NO EMBEDDED ITEM SHALL BE SUSPENDED FROM, SUPPORTED BY, OR BRACED IN PLACE FROM STRUCTURAL REINFORCEMENT.
- 13. LOCATE CONSTRUCTION JOINTS WHERE SHOWN ON THE DRAWINGS OR AS AUTHORIZED BY ENGINEER. SLABS, JOISTS AND BEAMS SHALL NOT HAVE JOINTS IN A HORIZONTAL PLANE EXCEPT WHERE DETAILED ON DRAWINGS. 14. THOROUGHLY CLEAN ALL KEYWAYS AND CONSTRUCTION JOINTS PRIOR TO PLACING CONCRETE IN ADJACENT POUR. PVC WATERSTOP A. PROTECT ALL PROJECTING WATERSTOPS FROM DAMAGE AND EXPOSURE DURING CONSTRUCTION.
- FIRMLY TIE ALL ENDS AND EDGES OF WATERSTOPS AT 18 INCH MAXIMUM TO PREVENT MOVEMENT DURING 16. BEGIN SPACING OF BARS WHICH PARALLEL CONSTRUCTION AND EXPANSION JOINTS 2 INCHES CLEAR EACH SIDE OF JOINT.
- 17. UNLESS OTHERWISE SHOWN, PLACE (2) #5 (1 EACH FACE) WITH 24 INCH PROJECTIONS AROUND ALL OPENINGS IN CONCRETE WALLS AND SLABS. 18. PROVIDE AN ADDITIONAL 500 LINEAL FEET EACH OF #4 AND #5 REINFORCING BARS FOR USE AS DIRECTED DURING
- CONSTRUCTION. 19. CHAMFER ALL EXPOSED CONCRETE EDGES 0.75 INCHES, UNLESS OTHERWISE INDICATED.

SLAB-ON-GRADE CONCRETE

SLAB ON GRADE CONTRACTION JOINTS ARE DENOTED "CJ" ON DRAWINGS. SLAB ON GRADE CONSTRUCTION JOINTS ARE DENOTED "CONSTR JT". [SLAB ON GRADE CONTRACTION JOINTS ARE TO BE SPACED NO GREATER THAN 12 FEET FOR 4 INCH THICK SLAB (18 FEET FOR 6 INCH THICK SLAB) IN ANY DIRECTION, UNLESS OTHERWISE INDICATED ON PLANS.]

2 5 5

- AT CONTRACTOR'S OPTION, CONSTRUCTION JOINTS MAY BE SUBSTITUTED FOR CONTRACTION JOINTS. LOCATE REINFORCEMENT 1.5 INCHES FROM TOP OF SLAB. PROVIDE 1 - #4 x 4 FEET PARALLEL TO EDGE OF SLAB OPPOSITE THE END OF ALL DISCONTINUED SLAB JOINTS, AND 1 - #4 x
- 4 FEET DIAGONAL BAR AT ALL REENTRANT CORNERS. PLACE BARS MID-DEPTH IN SLAB AND 2 INCHES CLEAR FROM EDGE OF 5. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DEPRESSED SLAB AREAS AND DRAINS. SLOPE SLAB TO DRAINS
- A. SLOPE BOTTOM SURFACE OF SLABS AS NECESSARY TO MAINTAIN MINIMUM THICKNESS NOTED ON DRAWINGS FOR ALL SLARS WITH SLOPING TOP SURFACE OR DEPRESSION IN ORDER TO MINIMIZE CONCRETE SHRINKAGE CRACKING, PLACE CONCRETE SLABS IN AN ALTERNATING LANE OR CHECKERBOARD PATTERN. THE MAXIMUM LENGTH OF SLAB CAST IN ANY ONE CONTINUOUS POUR IS RECOMMENDED TO
- BE LESS THAN 100 FEET. 7. FINISH TOLERANCE OF ALL SLABS SHALL BE IN ACCORDANCE WITH ACI 301, TYPE A.

PRECAST PRESTRESSED CONCRETE

- DESIGN AND FABRIATION OF PRECAST PRESTRESSED CONCRETE MEMBERS SHALL CONFORM TO ACI 318 AND PRESTRESSED CONCRETE INSTITUTE MNL-116.
- MATERIAL A. CONCRETE MEMBERS HOLLOWCORE PLANK f`c = 5,000 PSI f`c = 6,000 PSI PRECAST BEAM
- iii) PRECAST COLUMN $f^c = 5,000 PSI$ PRESTRESSING STRANDS ASTM A416, GRADE 270 PRECAST PRESTRESSED CONCRETE MEMBERS SHALL BE DESIGNED AND REINFORCED BY THE MANUFACTURER TO SUPPORT
- ALL SUPERIMPOSED DEAD LOADS AND THE DESIGN LOADS NOTED ON PLANS. 4. DEVIATIONS FROM MEMBER CROSS SECTION, LAYOUT AND CONNECTION DETAILS SHOWN ON THE DRAWINGS WILL BE PERMITTED ONLY AS AUTHORIZED BY ENGINEER.

CONCRETE TOPPING

- 1. CONCRETE TOPPING SHALL BE REINFORCED WITH A SYNTHETIC FIBER MEETING THE FOLLOWING REQUIREMENTS: A. FIBRILLATED POLYPROPYLENE FIBERS ENGINEERED AND DESIGNED FOR USE IN CONCRETE, COMPLYING WITH ASTM
- LENGTH: FIBER LENGTH SHALL BE A MINIMUM OF 1.5 INCHES. DOSAGE: FIBERS SHALL BE USED AT A MINIMUM DOSAGE RATE OF 1.5 POUNDS PER CUBIC YARD OF CONCRETE.

- 1. MASONRY CONSTRUCTION SHALL CONFORM TO IBC.
- MATERIALS A. CONCRETE MASONRY UNITS ASTM C90, GRADE N, TYPE I SPECIFIED COMPRESSIVE STRENGTH f`m = 1,500 PSI NORMAL WEIGHT AGGREGATE B. REINFORCING BARS ASTM A615, GRADE 60
 - ASTM C270, TYPE S GROUT FOR MASONRY BOND BEAMS, LINTELS, VERTICAL WALL CORES AND JAMBS SHALL CONFORM TO ASTM C476, AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2000 PSI.
- PROVIDE TEMPORARY BRACING FOR ALL MASONRY WALLS AS NECESSARY DURING CONSTRUCTION. REINFORCE ALL MASONRY WALLS WITH 9-GAGE, LADDER TYPE HORIZONTAL JOINT REINFORCEMENT AT 16 INCHES MAXIMUM. MANUFACTURER'S STANDARD PREFABRICATED SECTION SHALL BE USED AT ALL CORNERS AND INTERSECTIONS UNLESS OTHERWISE DETAILED. LAP SIDE RODS OF JOINT REINFORCEMENT 6 INCHES MINIMUM AT SPLICES. 5. EXCEPT WHERE OFFSETS WITH SLIP JOINTS ARE SHOWN, MASONRY CONTROL JOINTS SHALL BE A CONTINUOUS VERTICAL LINE FROM TOP OF FOUNDATION TO TOP OF MASONRY WALL. UNLESS SHOWN ON ELEVATIONS, SPACING OF CONTROL

AND 24 FEET MAXIMUM AT EXTERIOR WALLS (U.N.O.). DISCONTINUE JOINT REINFORCEMENT AT MASONRY CONTROL

JOINTS SHALL BE TWO AND ONE HALF (2.5) TIMES THE WALL HEIGHT, BUT NOT GREATER THAN 50 FEET AT INTERIOR WALLS

REINFORCE ALL BOND BEAMS AND JAMB BLOCKS WITH 2 - #5, UNLESS OTHERWISE NOTED. LAP REINFORCEMENT FOR MASONRY BOND BEAMS AND VERTICAL WALL CORES AS NOTED BELOW. USE TYPE I LAP LENGTHS, UNLESS NOTED OTHERWISE ON PLANS.

BAR SIZE	REGULAR BARS	TOP BARS
#3	1' - 3"	2' - 3"
#4	1' - 8"	3' - 0"
#5	2' - 1"	3' - 9"
#6	2' - 6"	4' - 6"
#7	2' - 11"	5' - 3"
#8	3' - 4"	6' - 0"

- PROVIDE DOWEL BARS FROM FOUNDATION FOR ALL VERTICAL WALL REINFORCEMENT. EMBED DOWEL BARS 40 BAR DIAMETERES IN FOUNDATION WALLS OR FURNISH WITH END HOOKS WHERE INDICATED. DOWEL SIZE SHALL
- MATCH WALL REINFORCEMENT. 9. SECURE REINFORCEMENT AGAINST DISPLACEMENT PRIOR TO GROUTING BY WIRE POSTITIONERS OR OTHER SUITABLE DEVICES AT INTERVALS NOT EXCEEDING 200 BAR DIAMETERS NOR 10 FEET.
- 10. ELEVATION CHANGES IN BOND BEAMS NOT OTHERWISE INDICATED TO SLOPE SHALL BE ACCOMPLISHED BY STEPPING BOND BEAMS IN WALL WITH EACH STEP LAPPED A MINIMUM OF 5'-4" 11. GALVANIZE LOOSE STEEL LINTELS LOCATED IN EXTERIOR WALLS.

- 1. STRUCTURAL STEEL CONSTRUCTION SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
- A STRUCTURAL STEEL W-SHAPES ASTM A992, GRADE 50 STRUCTURAL STEEL CHANNELS, ANGLES, PLATES, AND MISC. ASTM A36
- STRUCTURAL TUBING ASTM A500, GRADE B STEEL PIPE ASTM A53, TYPE E OR S, GRADE B HIGH-STRENGTH BOLTS ASTM A325 ANCHOR BOLTS ASTM F1554, GRADE 36
- HEADED ANCHOR STUDS ASTM A108 3. ALL STRUCTURAL STEEL BOLTED CONNECTIONS SHALL BE 0.75 INCH DIAMETER A325-N BOLTS WITH STANDARD HOLES, UNLESS OTHERWISE NOTED.
- 4. ALL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE STEEL (AWS D1.1). AND SHALL BE PERFORMED BY WELDERS QUALIFIED BY THE APPROPRIATE AWS TEST FOR THE WELDING 5. ALL STRUCTURAL STEEL DESIGNATED (AESS) ON DRAWINGS SHALL CONFORM TO AISC SPECIFICATIONS FOR
- ARCHITECTURALLY EXPOSED STRUCTURAL STEEL. 6. ALL WELDS SHALL BE MADE WITH E-70 ELECTRODES.

PLYWOOD / GYPBOARD SHEATHING

- 1. ALL PLYWOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AMERICAN PLYWOOD ASSOCIATION (APA) SPECFICATIONS AND IBC.
- MATERIALS
- A. PLYWOOD SHEATHING APA RATED SHEATHING ROOF PANEL SHEATHING
- A. SUITABLE EDGE SUPPORT FOR ROOF PANEL SHEATING SHALL BE PROVIDED BY USE OF PANEL CLIPS OR BLOCKING BETWEEN FRAMING. B. SECURE ROOF PANEL SHEATHING AS INDICATED IN SHEATHING SCHEDULE. [UNLESS OTHERWISE NOTED SECURE ROOF PANEL SHEATHING WITH 8d COMMON NAILS AT 6 INCHES O.C. AT SUPPORTED PANEL EDGES
- AND 6 INCHES O.C. AT INTERMEDIATE SUPPORTS.] 4. INSTALL ALL PLYWOOD SHEATING WITH THE LONG DIMENSION OF THE PANEL ACROSS SUPPORTS AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS. STAGGER PANEL END JOINTS. ALLOW 1/8 INCH SPACING AT PANEL ENDS AND EDGES UNLESS OTHERWISE RECOMMENDED BY THE SHEATHING MANUFACTURER.

COLD-FORMED METAL FRAMING

- 1. COLD-FORMED STEEL FRAMING CONSTRUCTION SHALL CONFORM TO THE AMERICAL IRON AND STEEL INSTITUTE'S
- "STANDARD FOR COLD-FORMED STEEL FRAMING GENERAL PROVISIONS".

ASTM A1003, STRUCTURAL GRADE, METALLIC COATED. A. STEEL SHEET

5. ALL NAILING SHALL BE CAREFULLY DRIVEN AND NOT OVERDRIVEN. THE USE OF STAPLES IS PROHIBITED FROM USE.

CONSTRUCTION DOCUMENTS 100%



		[
STAMP/SEAL:		
I HEREBY CERTIFY THAT THIS PLAN,		
SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION. AND		
THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER		
UNDER THE LAWS OF THE STATE OF MINNESOTA.		
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MN 40855		
BRYAN L. ASCHE, P.E. REG. NO.		
DATE: 04.01.15		
DATE. U4.U1.15		

CONSTRUCT NEW IT CENTER 04.01.15 STRUCTURAL STANDARD NOTES FOR HEALTHCARE AS NOTED TECHNOLOGY MANAGEMENT EXPANSION VA MEDICAL CENTER



SPECIAL INSPECTION & STRUCTURAL TESTING - GENERAL NOTES

- 1. THE FOLLOWING NOTES AND TABLES SHALL CONSTITUTE THE STATEMENT OF SPECIAL INSPECTIONS REQUIRED IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE (IBC) SECTION 1705. THE LISTED INSPECTION REQUIREMENTS REPRESENT THE MINIMUM ACCEPTABLE LEVEL OF INSPECTION. WHERE THE BUILDING CODE OR LOCAL JURISDICTION REQUIRES A GREATER LEVEL OF INSPECTION, THOSE REQUIREMENTS TAKE PRECEDENCE.
- 2. OBTAIN "STRUCTURAL TESTING AND SPECIAL INSPECTION PROGRAM SUMMARY SCHEDULE" FROM STRUCTURAL ENGINEER-OF-RECORD. 3. SPECIAL INSPECTOR AND INDEPENDENT TESTING AGENCY FOR SPECIAL INSPECTION AND TESTING SERVICES ARE THE RESPONSIBILITY AS IDENTIFIED IN TABLES.
- DEFINITIONS:
- A "SER" DENOTES STRUCTURAL ENGINEER-OF-RECORD. "APPROVED AGENCY" AS DEFINED BY IBC 2009; AN ESTABLISHED AND RECOGNIZED AGENCY REGULARLY ENGAGED IN CONDUCTING TESTS OR
- "FABRICATED ITEMS" AS DEFINED BY IBC 2009; STRUCTURAL , LOAD-BEARING OR LATERAL LOAD-RESISTING ASSEMBLIES CONSISTING OF MATERIALS ASSEMBLED PRIOR TO INSTALLATION IN A BUILDING OR STRUCTURE, OR SUBJECTED TO OPERATIONS SUCH AS HEAT TREATMENT, THERMAL CUTTING, COLD WORKING OR REFORMING AFTER MANUFACTURER AND PRIOR TO INSTALLATION IN A BUILDING OR STRUCTURE. MATERIALS PRODUCED IN ACCORDANCE WITH STANDARD SPECIFICATIONS REFERNCED BY IBC 2009, SUCH AS ROLLED STRUCTURAL STEEL SHAPES, STEEL- REINFORCING BARS, MASONRY UNITS, AND WOOD STRUCTURAL PANELS OR IN ACCORDANCE WITH A STANDARD, LISTED IN IBC 2009 CHAPTER 35, WHICH PROVIDES REQUIREMENTS FOR QUALITY CONTROL DONE UNDER THE SUPERVISION OF A THIRD-PARTY QUALITY CONTROL AGENCY SHALL NOT BE CONSIDERED "FABRICATED ITEMS".
- ASTM E329 STANDARD SPECIFICATION FOR AGENCIES ENGAGED IN THE TESTING AND/OR INSPECTION OF MATERIALS USED IN CONSTRUCTION.
- ASTM E43 STANDARD PRACTICE FOR AGENCIES PERFORMING NONDESTRUCTIVE TESTING. ASTM C1077 PRACTICE FOR LABORATORIES TESTING CONCRTE AND CONCRETE AGGREGATES FOR USE IN CONSTRUCTION AND CRITERIA FOR
- ASTM C1093 PRACTICE FOR ACCREDIATION OF TESTING AGENCIES FOR UNIT MASONRY. ASTM D3740 PRACTICE FOR MINIMUM REQUIREMENTS FOR AGENCIES ENGAGED IN THE TESTING AND/OR INSPECTION OF SOIL AND ROCK AS USED
- IN ENGINEERING DESIGN AND CONSTRUCTION.
- LOCAL BUILDING CODE SEE SPECIFIC REFERENES IN TABLES BELOW.

LABORATORY EVALUATION.

- QUALIFICATIONS: A TESTING AGENCY (TA) – THE TESTING AGENCY SHALL BE AN APPROVED INDEPENDENT TESTING AGENCY ACCEPTABLE TO THE OWNER,
 - i. AN APPROVED AGENCY SHALL BE OBJECTIVE, COMPETENT AND INDEPENDENT FROM THE CONTRACTOR RESPONSIBLE FOR THE WORK BEING INSPECTED. THE AGENCY SHALL ALSO DISCLOSE POSSIBLE CONFLICTS OF INTEREST SO THAT OBJECTIVITY CAN BE CONFIRMED. ii. AUTHORIZED TO OPERATE IN THE STATE IN WHICH THE PROJECT IS LOCATED AND EXPERIENCED WITH THE REQUIREMENTS AND TESTING METHODS SPECIFIED IN TABLES BELOW.
 - MEETING APPLICABLE REQUIREMENTS OF REFERENCES ABOVE. iv. TESTING EQUIPMENT SHALL BE CALIBRATED AT REASONABLE INTERVALS BY DEVICES OF ACCURACY TRACEABLE TO EITHER THE NATIONAL BUREAU OF STANDARDS, OR TO ACCEPTED VALUES OF NATURAL PHYSICAL CONSTANTS.
- SPECIAL INSPECTOR (SI) THE SPECIAL INSPECTOR SHALL BE UNDER THE DIRECT SUPERVISION OF A REGISTERED CIVIL/STRUCTURAL ENGINEER, EXPERIENCED WITH THE TYPE OF WORK REQUIRING STRUCTURAL TESTING AND SPECIAL INSPECTION. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL AND
- ACCORDING TO IBC 2009 SECTION 1704.1, THE SER IS PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.
- a. TESTING AGENCY AND/OR SPECIAL INSPECTORS SHALL SUBMIT REPORTS IN ACCORDANCE WITH THE STRUCTURAL TESTING AND SPECIAL INSPECTION SUMMARY SCHEDULE AND SHALL CONDUCT AND INTERPRET TESTS AND INSPECTIONS AND STATE IN EACH REPORT WHETHER; i. TEST SPECIMENS AND OBSERVATIONS COMPLY WITH APPROVED CONSTRUCTION DOCUMENTS, AND SPECIFICALLY STATE ANY DEVIATIONS RECORD TYPES AND LOCATIONS OF DEFECTS FOUND IN WORK
- iii. RECORD WORK REQUIRED AND PERFORMED, TO CORRECT DEFICIENCES b. REPORTS FOR STRUCTURAL TESTING AND SPECIAL INSPECTION SHALL BE SUBMITTED IN TIMELY MANNER TO THE CONTRACTOR, BUILDING OFFICIAL,
 - i. SUBMIT REPORTS FOR ONGOING WORK, TO PROVIDE THE INFORMATION NOTED BELOW: DATE ISSUED
 - PROJECT TITLE AND NUMBER
 - FIRM NAME AND ADDRESS NAME AND SIGNATURE OF TESTOR AND/OR INSPECTOR
 - DATE AND TIME OF MATERIAL SAMPLING DATE OF TEST OR INSPECTION
 - IDENTIFICATION OF PRODUCT AND SPECIFICATION SECTION LOCATION IN PROJECT, INCLUDING ELEVATIONS, GRID LOCATION AND DETAIL
 - TYPE OF TEST AND/OR INSPECTIONS RESULTS OF TESTS AND/OR INSPECTIONS, AND INTERPRETATION OF SAME
- OBSERVATIONS REGARDING COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS OR DEVIATIONS THERE FROM SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BESTOF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS, SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.
- DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPENCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND SER PRIOR TO THE COMPLETION OF THAT PHASE OF WORK. REPORTS FOR CONVENTIONAL TESTING AND INSPECTION SHALL BE SUBMITTED IN A TIMELY MANNER TO THE CONTRACTOR AND THE ARCHITECT OF RECORD.
- 8. REFER TO APPROVED CONSTRUCTION SPECIFICATIONS FOR CONVENTIONAL TESTING AND INSPECTION REQUIREMENTS. 9. RETESTING OF MATERIALS FAILING TO COMPLY WITH SPECIFIED REQUIREMENTS SHALL BE DONE AT CONTRACTOR'S EXPENSE.
- 10. EXEMPTIONS: SPECIAL INSPECTION IS NOT REQUIRED FOR THE FOLLOWING: WORK OF A MINOR NATURE OR AS WARRANTED BY CONDITIONS IN THE JURISDICTION AS APPROVED BY THE BUILDING OFFICIAL
- BUILDING COMPONENTS UNLESS THE DESIGN INVOLVES THE PRACTICE OF PROFESSIONAL ENGINEER OR ARCHITECTURE AS DEFINED BY APPLICABLE STATE STATUTES AND REGULATIONS GOVERNING THE PROFESSIONAL REGISTRATION AND CERTIFICATION OF ENGINEERS OR ARCHITECTS. UNLESS OTHERWISE REQUIRED BY BUILDING OFFICIAL, GROUP U OCCUPANCIES THAT ARE ACCESSORY TO A RESIDENTIAL OCCUPANCY INCLUDING, BUT NOT LIMITED TO, THOSE LISTED IN IBC 2009 SECTION 312.1
- SPECIAL INSPECTION CAST-IN-PLACE CONCRETE IBC 2009 SECTION 1704.4

1. EXEMPTIONS: SPECIAL INSPECTION IS NOT REQUIRED FOR THE FOLLOWING ITEMS:

- a. ISOLATED SPREAD FOOTINGS OF BUILDINGS THREE STORES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK. b. CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS OF BUILDINGS THREE STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK, WHERE THE FOOTINGS SUPPORT WALLS OF LIGHT FRAME CONSTRUCTION, THE FOOTINGS ARE DESIGNED IN ACCORDANCE WITH IBC 2009 TABLE 1809.7, OR THE FOOTING STRUCTURAL DESIGN IS BASED ON CONCRETE COMPRESSIVE STRENGTH NO GREATER THAN 2500 PSI.
- c. NON-STRUCTUARL CONCRETE SLABS-ON-GRADE, INCLUDING PRESTRESSED SLABS ON GRADE WHEN EFFECTIVE PRESTRESS IN CONCRETE IS LESS THAN 150 PSI.
- d. CONCRETE FOUNDATION WALLS CONSTRUCTED IN ACCORDANE WITH IBC 2009 TABLE 1807.1.6.2. e. CONCRETE PATIOS, DRIVEWAYS AND SIDEWALKS ON GRADE.
- QUALIFICATIONS: a. SPECIAL INSPECTOR – TECHNICAL

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SECTION 3.8.6, 8.1.3 AND 21.2.8

- TECHNICAL I: ACI CERTIFIED GRADE I INSPECTOR. INSPECTOR SHALL BE EMPLOYED BY A TESTING LABORATORY, UNDER THE DIRECT
- TECHNICAL II: ACI CERTIFIED GRADE II INSPECTOR. INSPECTOR SHALL BE EMPLOYED BY A TESTING LABORATORY, UNDER THE DIRECT SUPERVISION OF A TECHNICAL III.
- iii. TECHNICAL III: A CIVIL/STRUCTURAL ENGINEER REGULARLTY ENGAGED IN THIS TYPE OF WORK, WITH A MINIMUM OF 4 YEARS EXPERIENCE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED AND IS AN EMPLOYEE OF A QUALIFIED AND APPROVED TESTING LABORATORY. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL REPORTS.
- iv. TESTING LABORATORY SHALL HAVE C.C.R.L. CERTIFICATION AT THE NATIONAL BUREAU OF STANDARDS. b. SPECIAL INSPECTOR – STRUCTURAL
- STRUCTURAL I: GRADUATE CIVIL/STRUCTURAL ENGINEER, OR OTHER PERSONNEL ACCEPTABLE TO THE SER, WITH EXPERIENCE IN THE DESIGN
- OF STRUCTUAL SYSTEMS OF THIS TYPE. INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STRUCTUARL II. STRUCTURAL II: CIVIL/STRUCTURAL ENGINEER REGULARLTY ENGAGED IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS. STRUCTURAL INSPECTOR – STRUCTURAL MAY BE BY INDEPENDENT TESTING AGENCY, SER, OR SER REPRESENTATIVE WITH

SPECIAL INSPECTION - CAST-IN-PLACE CONCRETE IBC 2009 SECTION 1704.4

	SI ECINE INSI ECTION CI	NOT THE TEXT COT	VERLIE IDE 2005 S	7ECTION 1704.4		
				OWNER	CONTRACTOR	
	DESCRIPTION	PERFORMED BY	FREQUENCY	EMPLOY	EMPLOY	COMMENTS
1.	OBSERVE ERECTED FORM WORK, SHORING AND BRACING TO ENSURE THAT WORK IS IN ACCORDANCE WITH FORM WORK DESIGN AND SHOP DRAWINGS. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED, PER ACI 318 SECTION 6.1.1	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
2.	VERIFCIATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO POST-TENSIONING AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS PER ACI 318 SECTION 6.2	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	LAB CURED SPECIMENS ACCEPTABLE, SEE TECHNICAL SPECIFICATION FOR QUALITY REQUIREMENTS
3.	INSPECTION REINFORCING STEEL, INCLUDING PRE-STRESSING TENDONS, AND PLACEMENT PER ACI 318 SECTION 3.5, 7.1~7.7	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
a.	VERIFY REINFORCING BAR GRADE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
b.	INSPECTION OF PLACEMENT OF REINFORCING STEEL AND PRESSTRESSING TENDONS FOR SIZE, SPACING, CLEARANCES	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
C.	VERIFY PLACED REINFORCING STEEL IS FREE OF DIRT, EXCESSIVE RUST AND DAMAGE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
d.	VERIFY PLACED REINFORCING STEEL IS ADEQUATELY TIED, CHAIRED AND SUPPORTED TO PREVENT DISPLACEMENT DURING CONCRETE PLAEMENT	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
e.	VERIFY BAR LAPS FOR PROPER LENGTH AND STAGGER, AND BAR BENDS FOR MINIMUM DIAMETER, SLOPE AND LENGTH	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
4.	INSPECTION OF REINFORCING STEEL WELDING (SEE STRUCTURAL STEEL WELDING NOTES)	SEE STRUCTURAL STEEL FRAMING	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	
5.	INSPECT ANCHOR BOLTS INSTALLED IN CONCRETE PRIOR TO AND DUIRING PLACEMENT PER ACI 318 SECTION 3.8.6, 8.1.3, AND 21.2.8	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		Х	
6.	VERIFY USE OF REQUIRED DESIGN MIX	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		Х	SEE TECHNICAL SPECIFICATION FOR FIELD QUALITY AND LAB REQUIREMENTS
7.	FIELD QUALITY CONTROL OF FRESH CONCRETE DURING PLACEMENT	SPECIAL INSPECTION - TECHNICAL I	PER TECHNICAL SPEC.		Х	SEE TECHNICAL SPECIFICATION FOR FIELD QUALITY REQUIRMENTS
8.	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER INSTALLATION PER ACI 318 SECTION 5.9 AND 5.10	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		X	
9.	OBSERVE PROTECTION AND CURING OF FRESH CONCRTETE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
10.	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES PER ACI 318 SECTION 5.11~5.13	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
11.	INSPECTION OF PRESTRESSED CONCRETE APPLICATION OF PRESTRESSING FORCES PER ACI 318 SECTION 18.20	NOT APPLICABLE	CONTINUOUS	NOT APPLICABLE	NOT APPLICABLE	
12	INSPECTION OF PRESTRESSED CONCRETE GROUTING OF BONDED TENDONS IN SEISMIC-FORCE-RESISTING SYSTEM PER ACI 318 SECTION 18.18.4	NOT APPLICABLE	CONTINUOUS	NOT APPLICABLE	NOT APPLICABLE	
13.	POST-INSTALLED CONCRETE MECHANICAL FASTENERS: VISUALLY INSPECT SPECIFIED SIZE, SPACING, HOLE PREPARATION, EMBEDMENT, AND LOCATION; PER ACI 318	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		Х	

SPECIAL INSPECTION – STRUCTURAL STEEL FRAMING – IBC 2009 SECTION 1704.3

- A. ASNT: THE AMERICAN SOCIETY FOR NON-DESTRUCTIVE TESTING
- NDE: NON-DESTRUCTIVE EVALUATION AWS/CAWI: AMERICAN WELDING SOCIETY / CERTIFIED ASSOCIATE WELD INSPECTOR AWS/CWI: AMERICAN WELDING SOCIETY / CERTIFIED WELD INSPECTOR
- QUALIFICATIONS: A. SPECIAL INSPECTOR – GENERAL
- i. THE BASIS FOR WELDING INSPECTOR QUALIFICATIONS SHALL BE AWS D1.1.
- B. SPECIAL INSPECTOR TECHNICAL SHALL BE EMPLOYED BY A TESTING AGENCY AND SHALL BE SUPERVISED BY AN AWS/CWI WITH A MINIMUM OF 10 YEARS EXPERIENCE OR AN ASNT LEVEL III WITH A MINIMUM OF 10 YEARS EXPERIENCE. THESE INDIVIDUALS SHALL SATISFY THE FOLLOWING REQUIREMENTS:
- ii. TECHNICAL I: NON-DESTRUCTIVE TESTING TECHNICIAN SNT-TC-1A LEVEL I, AND/OR AWS CERTIFIED ASSOCIATE WELD INSPECTOR (CAWI). iii. TECHNICAL II: NON-DESTRUCTIVE TESTING TECHNICIAN ASNT TC-1A LEVEL II, (NDE TECHNICIAN II), AWS/CAWI, WITH MINIMUM 3 YEARS EXPERIENCE, OR AN AWS/CWI.
- iv. TECHNICAL III: ASNT LEVEL III WITH A MINIMUM OF 10 YEARS EXPERIENCE OR AN AWS/CWI WITH A MINIMUM OF 10 YEARS EXPERIENCE. STRUCTURAL I: GRADUATE CIVIL/STRUCTURAL ENGINEER, OR OTHER PERSONNEL ACCEPTABLE TO THE SER, WITH EXPERIENCE IN THE DESIGN OF
- STRUCTUAL SYSTEMS OF THIS TYPE. INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STRUCTUARL II. STRUCTURAL II: CIVIL/STRUCTURAL ENGINEER REGULARLTY ENGAGED IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS.
- iii. STRUCTURAL INSPECTOR STRUCTURAL MAY BE BY INDEPENDENT TESTING AGENCY, SER, OR SER REPRESENTATIVE WITH DIRECT SUPERVISION BY SER. A. APPROVED FABRICATORS: POSSES PRIOR APPROVAL IN ACCORDANCE WITH IBC 2009 SECTION 1704.2.2. i. UPON COMPLETION OF FABRICATION, THE STRUCTURAL STEEL APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE
- BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH APPROVED CONSTRUCTION DOCUMENTS, APPROVED SHOP DRAWINGS AND DESIGN AND AISC STANDARD SPECIFICATION. B. ALL OTHER FABRICATORS FABRICATOR TO ENGAGE A QUALIFIED INDEPENDENT SPECIAL INSPECTOR TO PERFORM INSPECTIONS INDICATED BELOW. SPECIAL INSPECTOR TO
- PREPARE REPORT AND SUBMIT TO BUILDING OFFICIAL. PAYMENT FOR THESE SERVICES WILL BE MADE BY THE FABRICATOR. ii. THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND
- ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK. CONDUCTED BY SPEICAL INSPECTOR STRUCTURAL I. EXEMPTION: SPECIAL INSPECTION OF THE STRUCTURAL STEEL FABRICATION PROCESS SHALL NOT BE REQUIRED WHERE THE FABRICATOR DOES NOT PERFORM ANY WELDING, THERMAL CUTTING OR HEATING OPERATION OF ANY KIND AS PARRT OF THE FABRICATION PROCESS. IN SUCH CASES, THE FABRICATOR SHALL BE REQUIRED TO SUBMIT A DETAILED PROCEDURE FOR MATERIAL CONTROL THAT DEMONSTRATES THE FABRICATOR'S ABILITY TO MAINTAIN SUITABLE RECORDS AND PROCEDURES SUCH THAT, AT ANY TIME DURING THE FABRICATION PROCESS, THE MATERIAL SPECIFICATION, GRADE AND MILL TEST REPORTS FOR THE MAIN STRESS-CARRYING ELEMENTS ARE CAPABLE OF BEING DETERMINED.

				OWNER	CONTRACTOR	
1	DESCRIPTION HIGH STRENGTH BOLTING (FIELD INSTALLED)	PERFORMED BY	FREQUENCY	EMPLOY	EMPLOY	COMMENTS
1. a.	VERIFY MATERIAL CONFORMS TO SPECIFIED ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. REFER TO ASTM MATERIAL	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	
b.	SPECIFICATIONS AND AISC 360, SECTN. A3.3 VERIFY MANUFACTURER'S CERTIFICATE OF COMPLIANCE FOR HIGH-STRENGTH BOLTS, NUTS AND WASHERS	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	
C.	VISUALLY INSPECT MATING SURFACES AND BOLT TYPE FOR ALL SLIP-CRITICAL BOLTED CONNECTIONS FOR GENERAL CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS PRIOR TO BOLTING	SPECIAL INSPECTION - TECHNICAL II	PERIODIC			
d.	VERIFY THAT THE REQUIREMENTS FOR BOLTS, NUTS, WASHERS, PAINT AND	SPECIAL INSPECTION -	PERIODIC		х	
e.	INSTALLATION/TIGHTENING STANDARDS ARE MET OBSERVE CALIBRATION PROCEDURES WHEN SUCH PROCEDURES ARE REQUIRED BY THE INSTALLATION METHOD OR IN THE APPROVED CONSTRUCTION DOCUMENTS SLIP CRITICAL BOLTS AND TENSION BOLTS	TECHNICAL II SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS		Х	
i)	VERIFY THAT SELECTED PROCEDURE IS USED TO TIGHTEN BOLTS	SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS		X	NOT APPLICABLE
ii)	MONITOR BOLT INSTALLATION WHEN THE CALIBRATED WRENCH METHOD OR TURN-OF-THE-NUT METHOD WITHOUT MATCH MARKING IS USED PER AISC 360 SECTION M2.5	SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS		Х	NOT APPLICABLE
iii)	MONITOR BOLT INSTALLATION IF THE TURN-OF-THE-NUT METHOD WITH MATCH MARKING, DIRECT TENSION INDICATOR, OR "TWIST OFF BOLT" METHODS ARE USED PER AISC 360 SECTION M2.5. VISUALLY VERIFY TIGHTENING OF ALL BOLTS	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		Х	NOT APPLICABLE
iv)	VISUALLY INSPECT TO VERIFY ALL PLIES OF CONNECTED ELEMENTS HAVE BEEN BROUGHT INTO CONTACT, AT 100% OF CONNECTIONS	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		Х	NOT APPLICABLE
v)	VISUALLY INSPECT TO VERIFY ALL TIPS ARE REMOVED FROM "TWIST OFF BOLTS"	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	NOT APPLICABLE
g. i)	BEARING-TYPE BOLTS (TYPE N OR X) VISUALLY INSPECT TO VERIFY ALL PLIES OF CONNECTED ELEMENTS HAVE BEEN	SPECIAL INSPECTION -	PERIODIC		X	
ii)	INSPECT BEARING-TYPE CONNECTIONS IN ACCORDANCE WITH AISC 360 SECTION	SPECIAL INSPECTION -			X	
h.	M2.5 MISCELLANEOUS METALS, INSERTS AND PREFABRICATED COMPONENTS	TECHNICAL II				
i)	WHERE INTEGRITY OF THE CONNECTIONS IMPACT LIFE SAFETY OR PERFORMANCE OF THE BUILDING STRUCTURE, PROVIDE TESTING AND INSPECTION AS FOR TYPICAL FIELD BOLT CONNECTIONS SPECIFIED ABOVE				Х	
a.	HIGH STRENGTH BOLTING (SHOP INSTALLED) FOR SHOP FABRCIATED WORK, PERFORM TESTS REQUIRED FOR FIELD INSTALLATION SPECIFIED ABOVE, EXCEPT THAT BOLT TESTING MAY BE REDUCED OR DELETED, IF FABRICATION SHOP SATISFIES AISC QUALITY CERTIFICATION PROGRAM — CATEGORY I, OR MORE STRINGENT CRITERIA, OR IS APPROVED BY BUILDING OFFICIAL AND SER	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	FABRICATOR IS RESPONSIBLE FO THESE SERVICES
3. a.	WELDING (GENERAL) PRIOR TO START OF FABRICATION, DETERMINE IF FABRICATION SHOP MEETS THE	SPECIAL INSPECTION -	PRIOR TO		X	
b.	CRITERIA FOR EXEMPTING SHOP WELDS FROM INSPECTION AND CONFIRM IN WRITING TO BUILDING OFFICIAL AND SER PRIOR TO START OF FABRICATION, VERIFY QUALIFICATIONS OF ALL WELDERS AS	TECHNICAL II	FABRICATION PRIOR TO		X	
С.	AWS CERTIFIED PRIOR TO START OF FABRICATION, VERIFY GOALIFICATIONS OF ALL WELDERS AS AWS CERTIFIED		FABRICATION PRIOR TO			
d.	COMPLIANCE FOR WELD FILLER MATERIALS PRIOR TO START OF FABRICATION, VERIFY PROPOSED WELDING PROCEDURES AND		FABRICATION PRIOR TO		X	
e.	MATERIALS MEET AWS REQUIRMENTS VERIFY ADEQUATE PREPARATION OF FAYING SURFACES		FABRICATION PERIODIC		X	
f.	VERIFY WELD FILLER MATERIAL IDENTIFICATION MARKINGS CONFORM TO AWS SPECIFICATION SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS		PERIODIC		X	AISC 360 SECTION A3.5 AND APPLICABLE AWS A5 DOCUMEN
g.	VERIFY PREHEAT AND INTERPASS TEMPERATURES OF STEEL, PROPER TECHNIQUE AND SEQUENCE OF WELDING, AND CLEANING AND NUMBER OF PASSES ARE PROVIDED AS REQUIRED	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		х	AN EIGHBLE AWS AS DOCUMEN
h. 4. a.	EXCEPTION: SPECIAL INSPECTION NEED NOT BE CONTINUOUSLY PRESENT DURING WELDING OF THE FOLLOWING ITEMS, PROVIDED THE MATERIALS, WELDING PROCEDURES AND QUALIFICATIONS OF WELDERS ARE VERIFIED PRIOR TO THE START OF WORK; PERIODIC INSPECTIONS ARE MADE OF THE WORK IN PROGRESS; AND A VISUAL INSPECTION OF ALL WELDS IS MADE PRIOR TO COMPLETION OR PRIOR TO SHIPMENT OF SHOP WELDING; SINGLE-PASS FILLET WELDS NOT EXCEEDING 5/16 INCH IN SIZE; FLOOR AND ROOF DECK WELDING; STUD SHEAR CONNECTOR WELDS; COLD-FORMED STEEL FRAMING (JOISTS AND STUDS); WELDING OF STAIRS AND RAILING SYSTEMS WELDING (FIELD) FILLET WELDS	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	
i)	VISUALLY INSPECT 10% OF TOTAL WELD LENGTH OF SINGLE-PASS FILLET WELDS 5/16 INCH OR LESS DURING INSTALLATION FOR SIZE, LENGTH, AND QUALITY, PER	SPECIAL INSPECTION - TECHNICAL II	AS NOTED		Х	
ii)	AWS D1.1. VISUALLY INSPECT 100% OF COMPLETED WELDS PRIOR TO COMPLETION OF WORK INSPECT WELDING PROCESS FOR ALL MULTI-PASS FILLET WELDS AND SINGLE PASS	SPECIAL INSPECTION -	CONTINUOUS		X	
b.	FILLET WELDS GREATER THAN 5/16 INCH PARTIAL PENETRATION WELDS	TECHNICAL II	COMTINUOUS		^	
i)	INSPECT WELDING PROCESS FOR ALL PARTIAL PENETRATION GROOVE WELDS PER AWS D1.1	SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS		X	
ii)	TEST 100% OF ALL PARTIAL PENETRATION WELDS EXCEEDING 5/16 INCH, USING ULTRA TESTING PER AWS D1.1	SPECIAL INSPECTION - TECHNICAL II	AS NOTED		Х	
iii)	TEST 25% OF ALL PARTIAL PENETRATION WELDS LESS THAN 5/16 INCH, USING MAGNETIC PARTICLE TESTING PER ASTM E109, PERFORMED ON ROOT PASS AND ON FINISHED WELD	SPECIAL INSPECTION - TECHNICAL II	AS NOTED		X	
c, i)	FULL PENETRATION WELDS INSPECT WELDING PROCESS FOR ALL FULL PENETRATION GROOVE WELDS, PER AWS		CONTINUOUS		X	
ii)	D1.1 TEST 100% OF ALL FULL PENETRATION WELDS EXCEEDING 5/16 INCH, USING ULTRA TESTING PER AWS D1.1	TECHNICAL II SPECIAL INSPECTION - TECHNICAL II	AS NOTED		X	
iii)	TESTING PER AWS D1.1 TEST 25% OF ALL FULL PENETRATION WELDS LESS THAN 5/16 INCH, USING MAGNETIC PARTICLE TESTING PER ASTM E109, PERFORMED ON ROOT PASS AND ON FINISHED WELD	SPECIAL INSPECTION - TECHNICAL II	AS NOTED		X	

SPECIAL INSPECTION - STR	UCTURAL STEEL FI	RAMING IBC 2009	SECTION 1704	.3	
DESCRIPTION	PERFORMED BY	FREQUENCY	OWNER EMPLOY	CONTRACTOR EMPLOY	COMMENTS
PLUG AND SLOT WELDS	SPECIAL INSPECTION -	CONTINUOUS		X	
INSPECT WELDING PROCESS FOR ALL PLUG AND SLOT WELDS	TECHNICAL II	CONTINUOUS		X	
STUD SHEAR CONNECTOR WELDS					
VISUALLY INSPECT 100% OF INSTALLED STUDS FOR FULL 360 DEGREE FLASH. TEST ALL QUESTIONABLE STUDS, NOT SHOWING FULL 360 DEGREE FLASH BY BENDING STUDS TO 15 DEGREES FROM VERTICAL, AWAY FROM WELD DISCONTINUITY, PER AWS D1.1	SPECIAL INSPECTION - TECHNICAL I	AS NOTED		х	
RANDOMLY TEST ALL OTHER STUDS BY BENDING TO 15 DEGREES FROM VERTICAL AS NOTED: STUDS WELDED THRU DECK 15%; STUDS WELDED TO BARE STEEL 5%; ALTERNATIVELY, SOUND 100% OF INSTALLED STUDS, FOR FULL PENETRATION WELD, USING AN 8 POUND MAUL. TEST QUESTIONABLE STUDS AS NOTED ABOVE	SPECIAL INSPECTION - TECHNICAL I	AS NOTED		Х	
VERIFY ALL WELDING FERRULES HAVE BEEN REMOVED STEEL JOIST/JOIST GIRDER WELDS	SPECIAL INSPECTION - TECHNICAL I	AS NOTED		X	
PROVIDE TESTING AND INSPECTION FOR FIELD WELDS SPECIFIED ABOVE					
METAL DECK WELDS					
VISUALLY INSPECT 10% OF TOTAL PUDDLE WELDS ON METAL DECK DESIGNED AS A STRUCTURAL ELEMENT DURING INSTALLATION FOR SIZE, LOCATION, LENGTH AND BURN THRU PER AWS D1.3. VISUALLY INSPECT 100% OF COMPLETED WELDS PRIOR TO COMPLETION OF WORK	SPECIAL INSPECTION - TECHNICAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
COLD FORMED METAL FRAMING WELDS	SPECIAL INSPECTION - TECHNICAL I	AS NOTED		Х	
VISUALLY INSPECT 10% OF WELDS DURING INSTALLATION FOR SIZE, AND CONTINUITY IN ACCORDANCE WITH AWS D1.3 FOR METAL LESS THAN 1/8 INCH IN THICKNESS. FOR WORK DESIGNED AS A STRUCTURAL ELEMENT, VISUALLY INSPECT 100% OF COMPLETED WELDS PRIOR TO COMPLETION OF WORK WELDING OF REINFORCING BARS					
VISUALLY INSPECT 100% OF ALL REINFORCING BAR WELDS AS THE WELDING IS	SPECIAL INSPECTION -	CONTINUOUS	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
PERFORMED, PER AWS D1.4 AND ACI 318 SECTION 3.5.2 PRIOR TO WELDING, VERIFY WELDABILITY OF REINFORCING STEEL OTHER THAN	TECHNICAL II SPECIAL INSPECTION -	PRIOR TO WELDING	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
ASTM A706	TECHNICAL II	TRIOR TO WEEDING			NOT ATTECABLE
PRIOR TO WELDING, VERIFY PROPER JOINT PREPARATION IS PROVIDED AND PROPER ELECTRODES ARE USED AND PROPERLY STORED AND DRIED	SPECIAL INSPECTION - TECHNICAL II	PRIOR TO WELDING	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
MISCELLANEOUS METALS, INSERTS AND PREFABRICATED COMPONENTS					
WHERE INTEGRITY OF THE CONNECTIONS IMPACT LIFE SAFETY OR PERFORMANCE OF THE BUILDING STRUCTURE, PROVIDE TESTING AND INSPECTION AS FOR TYPICAL WELDS SPECIFIED ABOVE					
WELDING (SHOP) PERFORM AS SPECIFIED FOR FIELD WELDING ABOVE, EXCEPT WELD TESTING MAY BE REDUCED OR DELETED, IF FABRICATION SHOP SATISFIES AISC QUALITY CERTIFICATION PROGRAM – CATEGORY I, OR MORE STRINGENT CRITERIA, AND IS APPROVED BY BUILDING OFFICIAL AND SER	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
STRUCTURAL CONFIGURATION SUBMITTALS: VERIFY MANUFACTURER'S CERTIFIED MILL TEST REPORTS AND OTHER SUBMITTED DOCUMENTATION, FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH ASTM A6 OR ASTM A568	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
MATERIALS: VERIFY IDENTIFICATION MARKINGS OF STRUCTURAL STEEL MATERIALS DELIVERED TO SITE COMPLY WITH AISC 360 SECTION M5.5 AND CONFORM TO APPROVED CONSTRUCTION DOCUMENTS. MATERIALS INCLUDE STRUCTURAL STEEL, BOLTS, NUTS, WASHERS, ELECTRODES, STEEL DECK GAGE	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		Х	
MATERIALS: VERIFY IDENTIFICATION MARKINGS OF ALL OTHER STEEL DELIVERED TO SITE CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		X	
DETAIL COMPATIBILITY PROJECT DOCUMENTS AFFECTING INTEGRITY OF THE STRUCTURE	CDECIAL INCOCOTOR	AC NOTES		V	
REVIEW PROJECT DOCUMENTS AFFECTING INTEGRITY OF THE STRUCTURE, INCLUDING APPROVED CONSTRUCTION DOCUMENTS AND PERTINENT SUBMITTALS (APPROVED SHOP DRAWINGS)	SPECIAL INSPECTOR - STRUCTURAL I	AS NOTED		X	
VISIT SITE, AT INTERVALS APPROPRIATE TO THE STAGE OF CONSTRUCTION, TO PERFORM REVIEW OF THE STRUCTURE AND VISUALLY CONFIRM GENERAL COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
INSPECT THE FOLLOWING TO VERIFY MEMBER LOCATION, ORIENTATION, CONFIGURATION, TYPE, AND SIZE COMPLY WITH DETAILS INDICATED ON THE APPROVED CONSTRUCTION DOCUMENTS AND APPROVED SHOP DRAWINGS: BRACING AND STIFFENING MEMBERS; PROPER APPLICATIONS OF JOINT DETAILS AT CONNECTIONS FOR STRUCTURAL MEMBERS; OTHER WORK CRITICAL TO THE INTEGRITY OF THE BUILDING STRUCTURE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
VISUALLY INSPECT 100% OF MAIN-WIND-FORCE-RESISTANCE-SYSTEM CONNECTIONS TO CONFIRM COMFORMANCE WITH DETAILS INDICATED ON THE APPROVED CONSTRUCTION DOCUMENTS AND APPROVED SHOP DRAWINGS. SUSPECTIBLE CONNECTIONS MAY RECEIVE TESTING: MOMENT FRAMES AND CROSS BRACING WELD CONNECTIONS; MOMENT FRAMES AND CROSS BRACING BOLT CONNECTIONS, PERFORM AS SPECIFIED FOR BOLT CONNECTIONS ABOVE	SPECIAL INSPECTOR - STRUCTURAL II	AS NOTED		Х	

CONSTRUCTION DOCUMENTS 100%



STAMP/SEAL:	
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREP ME OR UNDER MY DIRECT SUPERVISIO THAT I AM A DULY LICENSED PROFESS UNDER THE LAWS OF THE STATE OF M	IN, AND IONAL ENGINEER
Btu	MN 40855
BRYAN L. ASCHE, P.E.	REG. NO.
DATE: 04.01.15	

CONSTRUCT NEW IT CENTER 04.01.15 SPECIAL INSPECTIONS FOR HEALTHCARE AS NOTED TECHNOLOGY MANAGEMENT EXPANSION BA AW VA MEDICAL CENTER



SPECIAL INSPECTION – EARTHWORK (GRADING, EXCAVATION AND FILLING) – IBC 2009 SECTION 1704.7

- 1. SPECIAL INSPECTIONS ARE REQUIRED FOR ALL EARTH WORK INDICATED BELOW, EXCEPT DURING PLACEMENT OF CONTROLLED FILL HAVING A TOTAL DEPTH OF 12 INCHES OR LESS.

 2. OUALIFICATIONS:
- a. SPECIAL INSPECTOR TECHNICAL
 - i. TECHNICAL II: TECHNICIAN SHALL BE UNDER THE DIRET SUPERVISION OF A TECHNICAL III. WORK SHALL BE PERFORMED IN A QUALIFIED GEOTECHNICAL/TESTING LABORATORY.

 ii. TECHNICAL II: TECHNICAL WITH A MINIMUM OF 2 YEARS EXPERIENCE, OR A GRADUATE ENGINEER, AND IS AN EMPLOYEE OF A QUALIFIED AND APPROVED
 - GEOTECHNICAL/TESTING LABORATORY, UNDER DIRECT SUPERVISION OF A TECHNICAL III.

 TECHNICAL III: A CIVIL/GEOTECHNICAL ENGINEER REGULARLTY ENGAGED IN THIS TYPE OF WORK, WITH A MINIMUM OF 4 YEARS EXPERIENCE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED, AND IS AN EMPLOYEE OF A QUALIFIED AND APPROVED GEOTECHNICAL/TESTING LABORATORY. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL FINAL FIELD REPORTS.

SPECIAL INSPECTION - FARTHWORK (GRADING, EXCAVATION AND FILLING) IBC 2009 SECTION 1704.7

		PERFORMED		OWNER	CONTRACTOR	
	DESCRIPTION	BY	FREQUENCY	EMPLOY	EMPLOY	COMMENTS
1.	CLASSIFY MATERIALS USED AND ENCOUNTERED DURING CONSTRUCTION PER ASTM D2488 AND ASTM D2487	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		Х	
2.	PERFORM LABORTORY TESTING OF MATERIALS, AS NEEDED (PROCTOR, SIEVE ANALYSIS, ATTERBERG LIMITS, CONSOLIDATION TEST, ETC.). PROVIE RESULTS OF TESTING INDICATING COMPLIANCE WITH OR DEVIATIONS FROM APPROVED CONSTRUCTION DOCUMENTS OR GEOTECHNICAL REPORT	SPECIAL INSPECTION - TECHNICAL I	PER TECHNICAL SPEC.		Х	SEE TECHNICAL SPECIFACTION FOR FIELD QUALITY REQUIREMENTS
3.	PERFORM FIELD DENSITY TESTS. PROVIE RESULTS OF TESTING INDICATING COMPLIANCE WITH OR DEVIATIONS FROM APPROVED CONSTRUCTION DOCUMENTS OR GEOTECHNICAL REPORT	SPECIAL INSPECTION - TECHNICAL I	PER TECHNICAL SPEC.		Х	SEE TECHNICAL SPECIFACTION FOR FIELD QUALITY REQUIREMENTS
1.	OBSERVE ALL SUBGRADES AND EXCAVATIONS BASES BELOW FOOTINGS AND SLAB-ON-GRADE; AND VERIFY MATERIALS ARE ADEQUATE SO THAT DESIGN BEARING CAPACITY IS ACHIEVED. VERIFIY EXCAVATIONS EXTEND TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL. DOCUMENT PRESENCE OF GROUNDWATER WITHIN EXCAVATIONS	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		Х	
5.	OBSERVE SUBGRADE PRIOR TO PLACEMENT OF CONTROLLED FILL. VERIFY SITE HAS BEEN PROPERLY PREPARED	SPECIAL INSPECTION - TECHNICAL III	PERIODIC		Х	
õ.	VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS		Х	
7.	VERIFY THAT FOOTINGS COMPLY WITH FROST DEPTH REQUIREMENTS AND SHALL REPORT ANY VARIANCES TO THE SER IN A TIMELY MANNER.	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		Х	
3.	PROVIDE REPORTS OF SUBGRADE OBSERVATIONS INDICATING GENERAL COMPLIANCE WITH OR DEVIATIONS FROM APPROVED CONSTRUCTION DOCUMENTS AND GEOTECHNICAL REPORT	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		Х	
€.	VERIFY CUT AND FILL SLOPES AS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	SPECIAL INSPECTION - TECHNICAL III	PERIODIC		Х	

SPECIAL INSPECTION – MASONRY – IBC 2009 SECTION 1704.5

TESTING AGENCY, SER, OR SER REPRESENTATIVE WITH DIRECT SUPERVISION BY SER.

- 1. EXEMPTIONS: SPECIAL INSPECTION IS NOT REQUIRED FOR THE FOLLOWING:
- EXEMPTIONS: SPECIAL INSPECTION IS NOT REQUIRED FOR THE FOLLOWING:

 a. EMPIRICALLY DESIGNED MASONRY, GLASS UNIT MASONRY, OR MASONRY VENEER DESIGNED BY IBC 2009 SECTION 2109, 2110 OR CHAPTER 14; OR ACI 530 CHAPTER 5, 6, OR 7
- WHEN THEY ARE PART O F BUILDING(S) IN OCCUPANCY CATEGORIES I, II, OR III.
 b. MASONRY FOUNDATION WALLS CONSTRUCTED IN ACCORDANCE WITH IBC 2009 TABLE 1807.1.3.3(1), 1807.1.3.3(2), 1807.1.3.3(3), OR 1807.1.3.3(4).
- c. MASONRY FIREPLACES, MASONRY HEATERS OR MASONRY CHIMNEYS INSTALLED OR CONSTRUCTED IN ACCORDANCE WITH IBC 2009 SECTION 2111, 2112, OR 2113, RESPECTIVELY.

 2. "PERIODIC" SHALL BE PERFORMED AT LEAST ONCE PER 1,000 SQUARE FEET, EXCEPT GROUT PLACEMENT IN SHEAR WALLS, MASONRY BEAMS, AND MASONRY COLUMNS
- SHALL BE INSPECTED ON A CONTINUOUS BASIS.

 3. REFER TO THE PROJECT SPECIFICATIONS FOR GROUT COMPRESSIVE TEST, MORTAR TEST AND VERIFICATION OF DESIGN COMPRESSIVE STRENGTH REQUIREMENTS.
- QUALIFICATIONS:
 a. SPECIAL INSPECTOR TECHNICAL
 - i. TECHNICAL I: TECHNICAL BE UNDER THE DIRECT SUPERVISION OF A TECHNICAL III REGULARLY ENGAGED IN TESTING AND INSPECTION OF THIS TYPE OF WORK.
 - THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS.

 ii. TECHNICAL II: GRADUATE CIVIL/STRUCTURAL ENGINEER, WITH EXPERIENCE IN THIS TYPE OF WORK. SUPERVISED BY A TECHNICAL III. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS.
 - iii. TECHNICAL III: A CIVIL/STRUCTURAL ENGINEER REGULARLTY ENGAGED IN THIS TYPE OF WORK, WITH A MINIMUM OF 4 YEARS EXPERIENCE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED, AND IS AN EMPLOYEE OF A QUALIFIED AND APPROVED TESTING LABORATORY. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL REPORTS.
 - i. STRUCTURAL I: GRADUATE CIVIL/STRUCTURAL ENGINEER, OR OTHER PERSONNEL ACCEPTABLE TO THE SER, WITH EXPERIENCE IN THE DESIGN OF STRUCTUAL SYSTEMS OF THIS TYPE.

 INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STRUCTUARL II.

 STRUCTURAL II: CIVIL/STRUCTURAL ENGINEER REGULARLTY ENGAGED IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE, LICENSED IN THE STATE IN WHICH

THE PROJECT IS LOCATED. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS. STRUCTURAL INSPECTOR – STRUCTURAL MAY BE BY INDEPENDENT

SPECIAL INSPECTION – PRECAST STRUCTURAL CONCRETE – IBC 2009 SECTION 1704.2 AND 1704.7

- QUALIFICATIONS:
- a. SPECIAL INSPECTOR TECHNICALi. NOT USED.
- b. SPECIAL INSPECTOR STRUCTURAL
 i. STRUCTURAL I: GRADUATE CIVIL/STRUCTURAL ENGINEER, OR OTHER PERSONNEL ACCEPTABLE TO THE SER, WITH EXPERIENCE IN THE DESIGN
- OF STRUCTUAL SYSTEMS OF THIS TYPE. INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STRUCTUARL II.

 STRUCTURAL II: CIVIL/STRUCTURAL ENGINEER REGULARLTY ENGAGED IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE, LICENSED IN
- THE STATE IN WHICH THE PROJECT IS LOCATED. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS.
- iii. STRUCTURAL INSPECTOR STRUCTURAL MAY BE BY INDEPENDENT TESTING AGENCY, SER, OR SER REPRESENTATIVE WITH DIRECT SUPERVISION BY SER.

FABRICATION: a. APPROVED FABRICATORS: POSSES PRIOR APPROVAL IN ACCORDANCE WITH IBC 2009 SECTION 1704.2.2.

- UPON COMPLETION OF FABRICATION, THE PRECAST APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH APPROVED CONSTRUCTION DOCUMENTS, APPROVED
- STRUCTURAL DESIGN, ACI 318 AND PCI MNL 120 "PCI DESIGN HANDBOOK PRECAST AND PRESTRESSED CONCRETE" STANDARDSPECIFICATION.
 b. ALL OTHER FABRICATORS
- i. FABRICATOR TO ENGAGE A QUALIFIED INDEPENDENT SPECIAL INSPECTOR TO PERFORM INSPECTIONS INDICATED BELOW. SPECIAL INSPECTOR
 TO PREPARE REPORT AND SUBMIT TO BUILDING OFFICIAL. PAYMENT FOR THESE SERVICES WILL BE MADE BY THE FABRICATOR. THE SPECIAL INSPECTOR
 SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION
 - SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK. CONDUCTED BY SPEICAL INSPECTOR STRUCTURAL I.

SPECIAL INSPECTION - PRECAST STRUCTURAL CONCRETE IBC 2009 SECTION 1704.2 AND 1704.7

	DESCRIPTION	PERFORMED BY	FREQUENCY	OWNER EMPLOY	CONTRACTOR EMPLOY	COMMENTS
1.	FABRICATOR IS RESPONSIBLE FOR PROVIDING SPECIAL INSPECTOR DURING FABRICATION. SEE REQUIREMENTS IDENTIFIED IN GENERAL NOTES ABOVE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
2.	VERIFY ON SITE INSTALLATION CONFORMS TO APPROVED CONSTRUCTION DOCUMENTS AND APPROVED SHOP DRAWINGS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	AISC 318 CHAPTER 16

	DESCRIPTION	PERFORMED	FDFOLIFNOV	OWNER	CONTRACTOR	CONANAENTS
	DESCRIPTION MASONRY PREPARATION AND PLACEMENT	BY SPECIAL INSPECTION - TECHNICAL I	PRIOR TO START	EMPLOY	EMPLOY X	COMMENTS
	PRIOR TO CONSTRUCTION AND FOR EVERY 5,000 SQUARE FEET DURING CONSTRUCTION, VERIFY I'm AND I'AAC	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		Х	
	VERIFY MASONRY BEARING SURFACES ARE CLEAN	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		X	
	VERIFY THAT MASONRY UNITS ARE CLEAN AND SOUND AND DRY	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		X	
•	VERIFY PROPORTIONS OF PREPARED MORTAR ARE CONSISTENT WITH PREVIOUSLY SUBMITTED MATERIALS. VERIFY PROPORTIONS OF MATERIALS IN PREMIXED OR PREBLENDED MORTAR AS DELIVERED TO CONSTRUCTION SITE	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		Х	
i	INSPECT LAYING OF MASONRY UNITS FOR THE FOLLOWING: NOMINAL UNIT WIDTHS, STACK OR RUNNING BOND, PROPER THICKNESS AND TOOLING OF MORTAR JOINTS, ACCEPTABLE DEPTH OF FURROWING OF BED JOINTS. NOTE TEMPERATURE AT TIME OF INSPECTION	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
		SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
•	OBSERVE SELECTION OF SAMPLES FOR MASONRY UNIT TESTS OR PREPARATION, STORAGE, HANDLING OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS, DEPENDING ON METHOD USED. (CONTRACTOR SHALL PROVIDE LABOR AND MATERIALS TO CONSTRUCT ALL PRISM TESTS.)	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		Х	
	INSPECT CONSTRUCTION, EXPANSION AND CONTRACTION JOINTS FOR LOCATION AND CONTINUITY OF STEEL	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
		SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
	VERIFY WALL CAVITIES ARE PROTECTED AGAINST ENTRY OF PRECIPITATION	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
	MASONRY REINFORCEMENT INSPECT PLACEMENT AND ALIGNMENT, SIZE, GRADE AND SPACING OF	SPECIAL INSPECTOR -	PERIODIC		X	
•	VERTICAL REINFORCEMENT AND DOWELS. INSPECT LENGTH OF LAP SPLICES, CLEARANCES BETWEEN BARS, CLEARANCES TO MASONRY UNITS AND OUTSIDE FACE OF WALLS, AND POSITIONING OF STEEL	STRUCTURAL I	TEMODIC		Α	
	INSPECT HORIZONTAL JOINT REINFORCEMENT STEEL AND MASONRY REINFORCEMENT BARS FOR SIZE, LENGTH OF LAP SPLICES, DOWELS, CLEARANCES BETWEEN BARS, CLEARANCE TO MASONRY UNITS AND OUTSIDE FACE OF WALLS, AND ALIGNMENT	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
	INSPECT TIES IN MASONRY FOR TYPE, STRAIGHTNESS, EMBEDMENT, SPACING AND SIZE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
	VERIFY TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING MASONRY ANCHORAGE TO STRUCTURAL MEMBERS, FRAMES, AND OTHER CONSTRUCTION	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		Х	
•	VERIFY WELDABILITY OF REINFORCEING STEEL. VERIFY WELDING OF REINFORCING BARS COMPLIES WITH REQUIREMENTS SET FORTH IN IBC 2009 SECTION 2.1.9.7.2 AND 3.3.3.4(B)	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
	MASONRY PRESTRESSING AS CONSTRUCTION BEGINS, VERIFY PRESTRESSING TECHNIQUE AND GRADE, SIZE, AND LOCATION OF PRESTRESSING TENDONS AND ANCHORAGES	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
•	INSPECT APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
•	AND ANCHORAGES	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
•	FOR BONDED TENDONS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
•	INSPECT GROUTING OF BONDED PRESTRESSING TENDONS. VERIFY PROPER GROUTING TECHNIQUE INCLUDING CONSOLIDATION TO APPROVED HEIGHT OF GROUT SPACE, RECONSOLIDATION AND VIBRATION	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
	PRIOR TO MASONRY GROUTING AND CAPPING VERIFY THAT GROUT SPACES ARE CORRECTLY SIZED AND CLEAN, CLEANOUTS ARE CLOSED AFTER INSPECTION AND GROUT BARRIERS ARE IN PLACE BEFORE GROUTING	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		Х	
	VERIFY PLACEMENT OF REINFORCEMENT AND CONNECTORS REMAINS CONSISTENT WITH CONSTRUCTION DOCUMENTS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
	VERIFY PROPORTIONS OF SITE PREPARED GROUT ARE CONSISTENT WITH PREVIOUSLY SUBMITTED MATERIALS. VERIFY PROPORTIONS OF MATERIALS IN PREMIXED OR PREBLENDED GROUT AS DELIVERED TO CONSTRUCTION SITE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	
•	VERIFY CONSTRUCTION OF MORTAR JOINTS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
	DURING GROUTING OPERATIONS	CDECIAL INICOECTOS	CONTINUESUS			
	VERIFY SLUMP FLOW AND VSI AS DELIVERED TO PROJECT SITE FOR SELF-CONSOLIDATING GROUT	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		X	
	VERIFY PROPER GROUTING TECHNIQUE INCLUDING CONSOLIDATION TO APPROVED HEIGHT OF GROUT SPACE, RECONSOLIDATION AND VIBRATION	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		Х	
	,	SPECIAL INSPECTOR -	PERIODIC		Х	
•	VERIFY THAT WORK IS BEING PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS AND THAT MATERIALS USED ARE CONSISTENT WITH	STRUCTURAL I SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	

2 5

CONSTRUCTION DOCUMENTS 100%



STAMP/SEAL: I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED ME OR UNDER MY DIRECT SUPERVISION, AN THAT I AM A DULY LICENSED PROFESSIONAL UNDER THE LAWS OF THE STATE OF MINNES	ID . ENGINEER
BRYAN L. ASCHE, P.E. DATE: 04.01.15	MN 40855 REG. NO.

DRAWING TITLE
SPECIAL INSPECTIONS
PROGRAMS

PROGRAMS

PROGRAMS

PROGRAMS

PROJECT TITLE
CONSTRUCT NEW IT CENTER
FOR HEALTHCARE
TECHNOLOGY
MANAGEMENT EXPANSION

PROJECT NO.
656-14-246

BUILDING NO
CHECKED BY
BA

CAD FILE
XXX

LOCATION
VA MEDICAL CENTER
ST. CLOUD, MN 56303

DRAWING NO.
SO21
DWG. X C



SPECIAL INSPECTION - ROUGH CARPENRY IBC 2009 SECTION 1704.2 AND 1704.6

1. QUALIFICATIONS:

i. TECHNICAL I: TECHNICIAN SHALL BE UNDER THE DIRECT SUPERVISION OF A TECHNICAL III. WORK SHALL BE

PERFORMED IN A QUALIFIED TESTING LABORATORY. ii. TECHNICAL II: TECHNICIAN WITH A MINIMUM OF 2 YEARS EXPERIENCE, OR A GRADUATE ENGINEER, AND IS AN EMPLOYEE OF A QUALIFIED TESTING LABORATORY, UNDER THE DIRECT SUPERVISION OF A TECHNICAL III.

iii. TECHNICAL III: AN ENGINEER REGULARLTY ENGAGED IN THIS TYPE OF WORK WITH A MINIMUM OF 4 YEARS EXPERIENCE, AND IS AN EMPLOYEE OF A QUALIFIED AND APPROVED TESTING LABORATORY. THE LICENSED ENGINEER SHALL REVIEW

AND APPROVE ALL REPORTS. b. SPECIAL INSPECTOR – STRUCTURAL

i. STRUCTURAL I: GRADUATE CIVIL/STRUCTURAL ENGINEER, OR OTHER PERSONNEL ACCEPTABLE TO THE SER, WITH EXPERIENCE IN THE DESIGN OF STRUCTUAL SYSTEMS OF THIS TYPE. INSPECTIONS SHALL BE PERFORMED UNDER THE

DIRECT SUPERVISION OF A STRUCTUARL II. ii. STRUCTURAL II: CIVIL/STRUCTURAL ENGINEER REGULARLTY ENGAGED IN THE DESIGN OF STRUCTURAL SYSTEMS OF

THIS TYPE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS. iii. STRUCTURAL INSPECTOR – STRUCTURAL MAY BE BY INDEPENDENT TESTING AGENCY, SER, OR SER REPRESENTATIVE

WITH DIRECT SUPERVISION BY SER. FABRICATION:

a. APPROVED FABRICATORS: POSSES PRIOR APPROVAL IN ACCORDANCE WITH IBC 2009 SECTION 1704.2.2. i. UPON COMPLETION OF FABRICATION, THE PREFABRICATED WOOD I-JOIST APPROVED FABRICATOR SHALL SUBMIT A

CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH APPROVED CONSTRUCTION DOCUMENTS, APPROVED STRUCTURAL DESIGN AND ASTM D5055 STANDARD

b. ALL OTHER FABRICATORS

i. FABRICATOR TO ENGAGE A QUALIFIED INDEPENDENT SPECIAL INSPECTOR TO PERFORM INSPECTIONS INDICATED BELOW. SPECIAL INSPECTOR TO PREPARE REPORT AND SUBMIT TO BUILDING OFFICIAL. PAYMENT FOR THESE SERVICES WILL BE

MADE BY THE FABRICATOR. ii. THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE

FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE

REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK. CONDUCTED BY SPEICAL INSPECTOR – STRUCTURAL I.

	SPECIAL INSPECTION - F	ROUGH CARPENR	Y IBC 2009 SECT	TON 1704.2 AN	ND 1704.6	
	DESCRIPTION	PERFORMED BY	FREQUENCY	OWNER EMPLOY	CONTRACTOR EMPLOY	COMMENTS
1.	FABRICATOR IS RESPONSIBLE FOR PROVIDING SPECIAL INSPECTION DURING FABRICATION. SEE REQUIREMENTS IDENTIFIED IN GENERAL NOTES ABOVE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC			FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
2.	FABRICATOR TO COMPLY WITH MINIMUM STANDARDS AND QUALITY FOR PREFABRICATED WOOD I-JOISTS PER IBC 2009, SECTION 2303.1.2					FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
3.	FABRICATOR TO COMPLY WITH MINIMUM STANDARDS AND QUAILTY FOR STRUCTURAL COMPOSITE LUMBER PER IBC 2009, SECTION 2303.1.9					FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
4.	PRIOR TO CONSTRUCTION, TEST JOIST HANGERS PER ASTM D1761 AND IBC 2009, SECTION 1716.1					FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
5.	VERIFY ONSITE INSTALLATION CONFORMS TO APPROVED CONSTRUCTION DOCUMENTS AND APPROVED SHOP DRAWINGS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		Х	

SPECIAL INSPECTION - SHEATHING IBC 2009 SECTION 1704.6

- QUALIFICATIONS: a. SPECIAL INSPECTOR – TECHNICAL
- b. SPECIAL INSPECTOR STRUCTURAL
- i. STRUCTURAL I: GRADUATE CIVIL/STRUCTURAL ENGINEER, OR OTHER PERSONNEL ACCEPTABLE TO THE SER, WITH EXPERIENCE IN THE DESIGN OF STRUCTUAL SYSTEMS OF THIS TYPE. INSPECTIONS SHALL BE
- PERFORMED UNDER THE DIRECT SUPERVISION OF A STRUCTUARL II.
- ii. STRUCTURAL II: CIVIL/STRUCTURAL ENGINEER REGULARLTY ENGAGED IN THE DESIGN OF STRUCTURAL
- ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS.
- iii. STRUCTURAL INSPECTOR STRUCTURAL MAY BE BY INDEPENDENT TESTING AGENCY, SER, OR SER REPRESENTATIVE WITH DIRECT SUPERVISION BY SER.

	SPECIAL INSPECTION - SHEATHING IBC 2009 SECTION 1704.6						
	DESCRIPTION	PERFORMED BY	FREQUENCY	OWNER EMPLOY	CONTRACTOR EMPLOY	COMMENTS	
1.	VERIFY THE FOLLOWING HIGH-LOAD DIAPHRAGM CONFORMS TO CONTRACT DOCUMENTS					APPLICABLE TO HIGH-LOAD DIAPHRAGMS DESIGNED IN ACCORDANCE TO IBC 2009, TABLE 2306.2.1(2)	
a.	VERIFY SHEATHING GRADE AND THICKNESS COMPLIES WITH APPROVED CONSTRUCTION DOCUMENTS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	
b.	VERIFY NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	
C.	VERIFY FASTENER TYPE AND SPACING REQUIREMENTS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	

CONSTRUCTION DOCUMENTS 100%



1 2 5

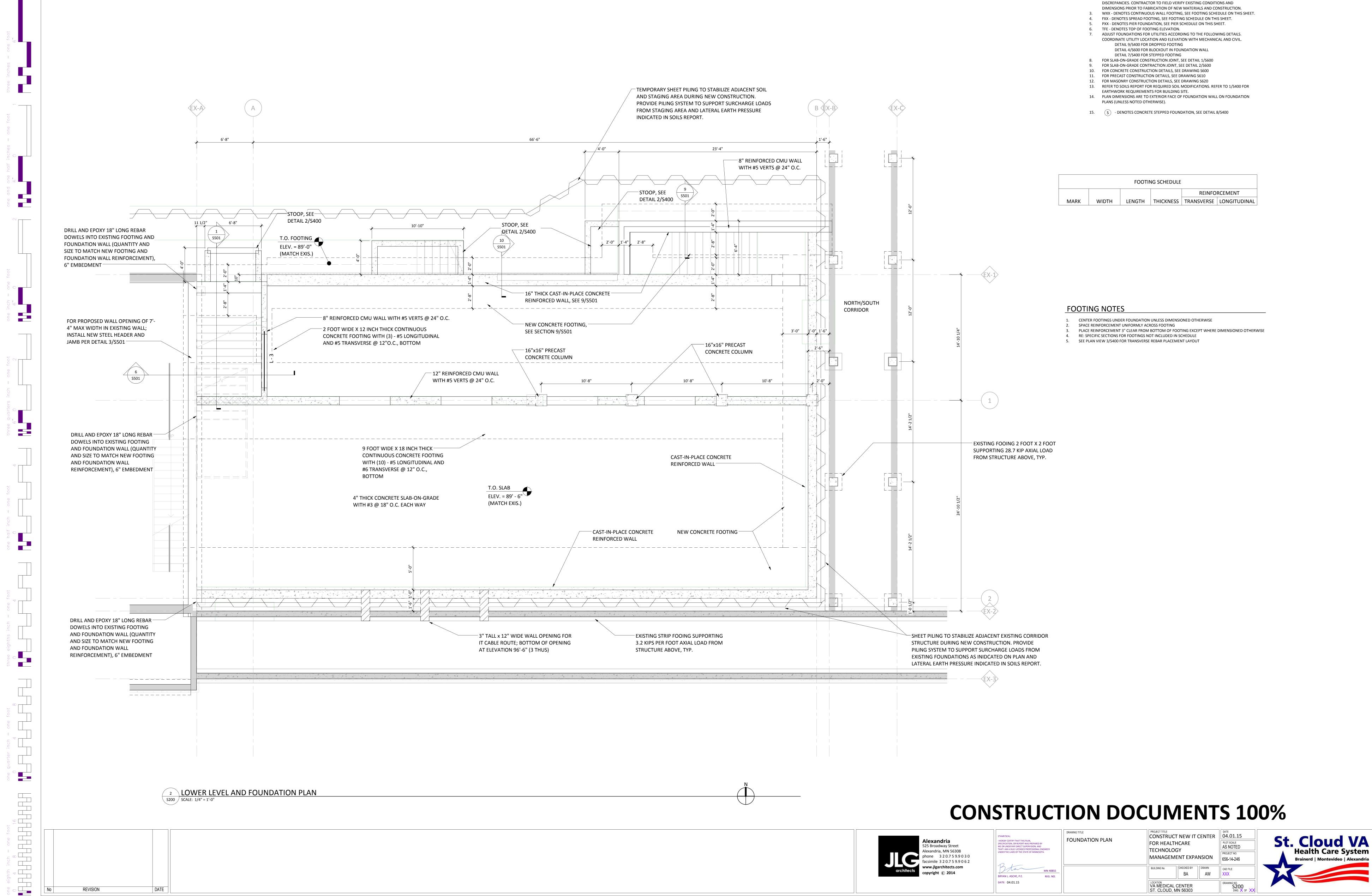
STAMP/SEAL: I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PRE ME OR UNDER MY DIRECT SUPERVISH THAT I AM A DUTY LEGRSED PROFES; UNDER THE LAWS OF THE STATE OF N	ON, AND SIONAL ENGINEER
Bton	MN 40855
BRYAN L. ASCHE, P.E.	REG. NO.
DATE: 04.01.15	

PROJECT TITLE
CONSTRUCT NEW IT CENTER
FOR HEALTHCARE
TECHNICIONS

PLOT SCALE
AS NOTED SPECIAL INSPECTIONS TECHNOLOGY MANAGEMENT EXPANSION 656-14-246 CHECKED BY DRAWN

BA AW VA MEDICAL CENTER ST. CLOUD, MN 56303





2 5 6

FOUNDATION PLAN NOTES:

Btu

BRYAN L. ASCHE, P.E. DATE: 04.01.15

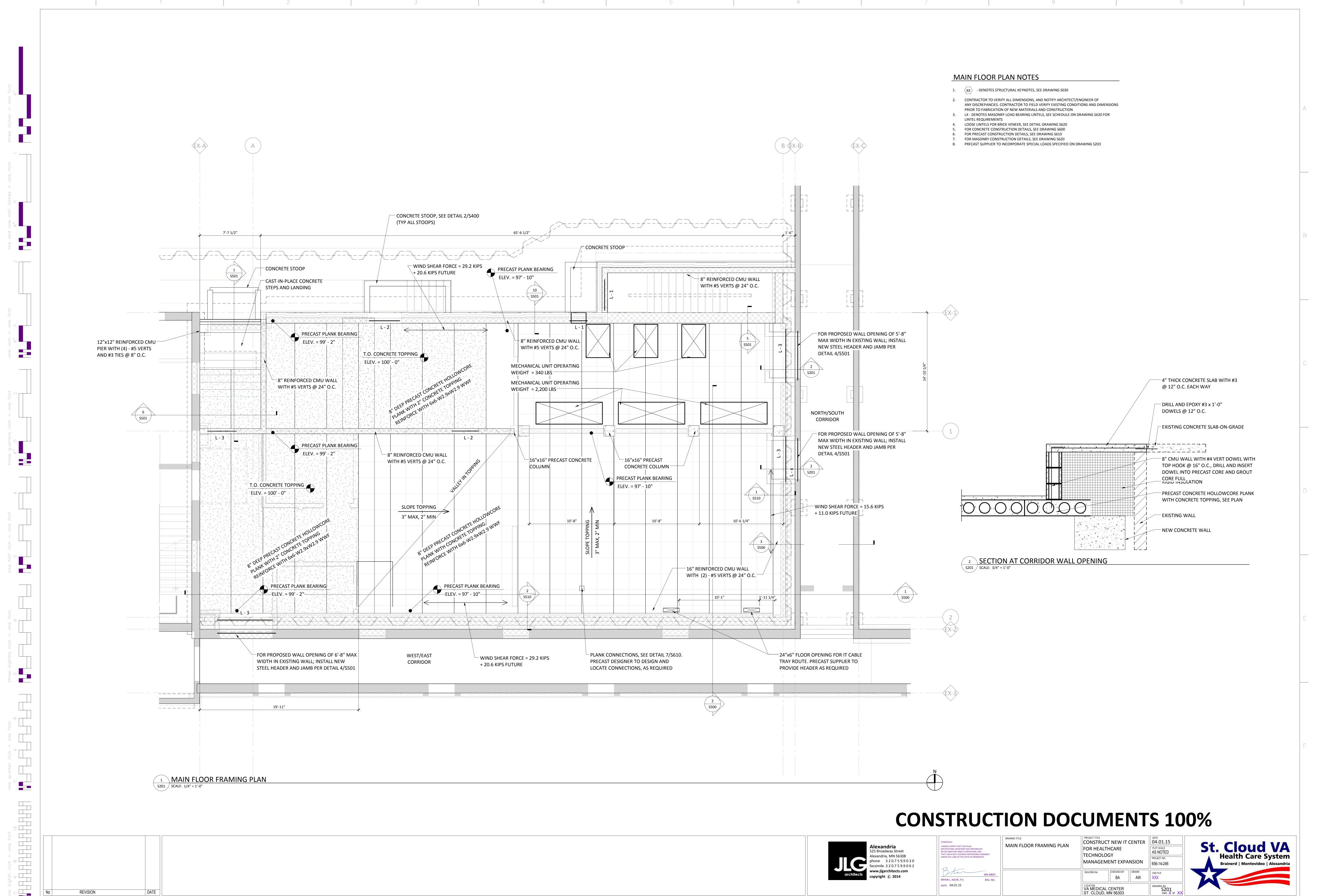
BA AW

VA MEDICAL CENTER

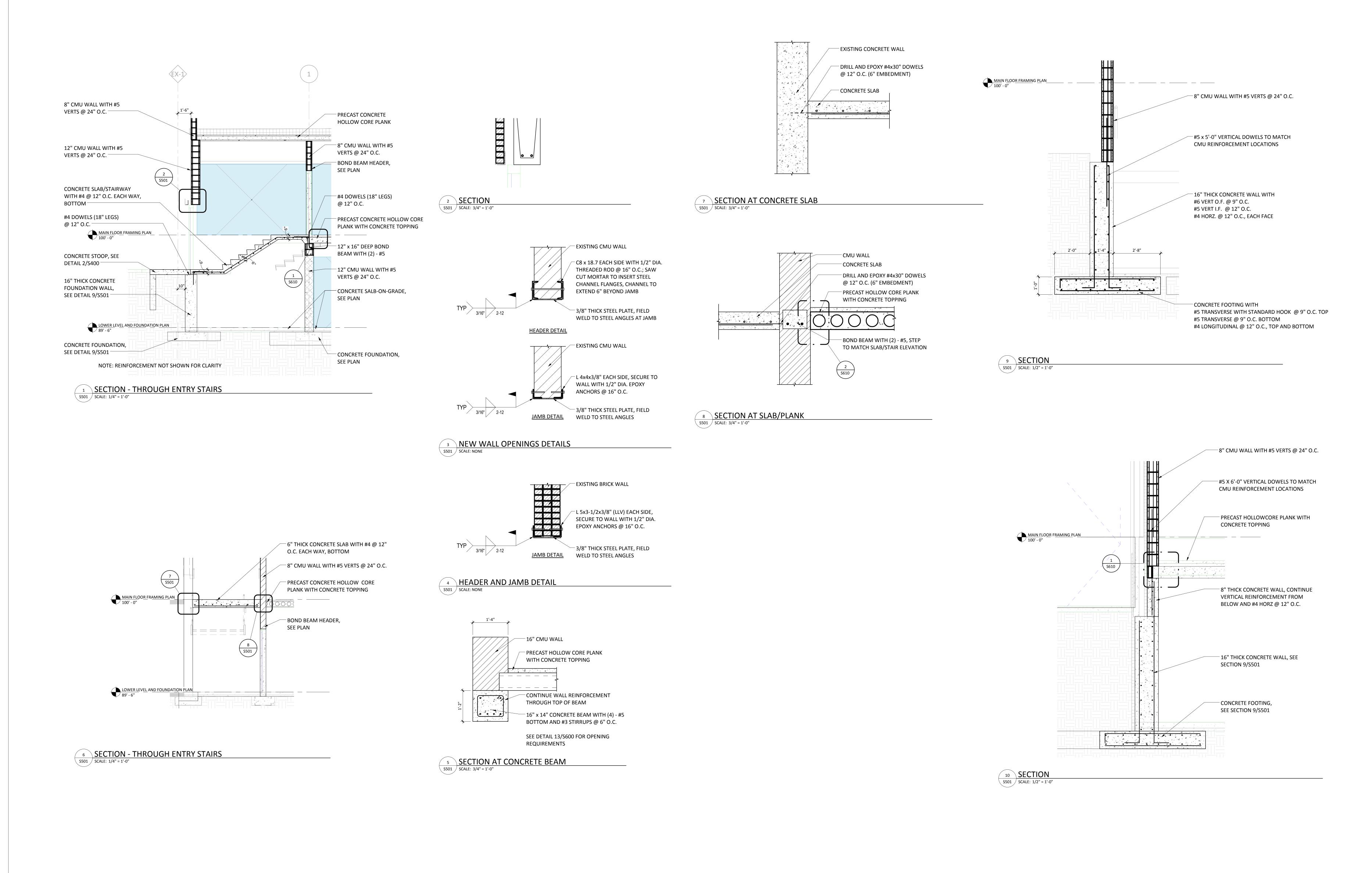
www.jlgarchitects.com

 $\langle \mathsf{xx}
angle$ -denotes structural keynotes, see drawing s030

2. CONTRACTOR TO VERIFY ALL DIMENSIONS, AND NOTIFY ARCHITECT/ENGINEER OF ANY



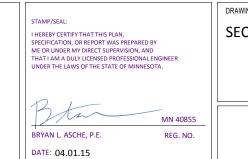
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CONSTRUCTION DOCUMENTS 100%





PROJECT TITLE
CONSTRUCT NEW IT CENTER
FOR HEALTHCARE
TECHNOLOGY
MANAGEMENT EXPANSION

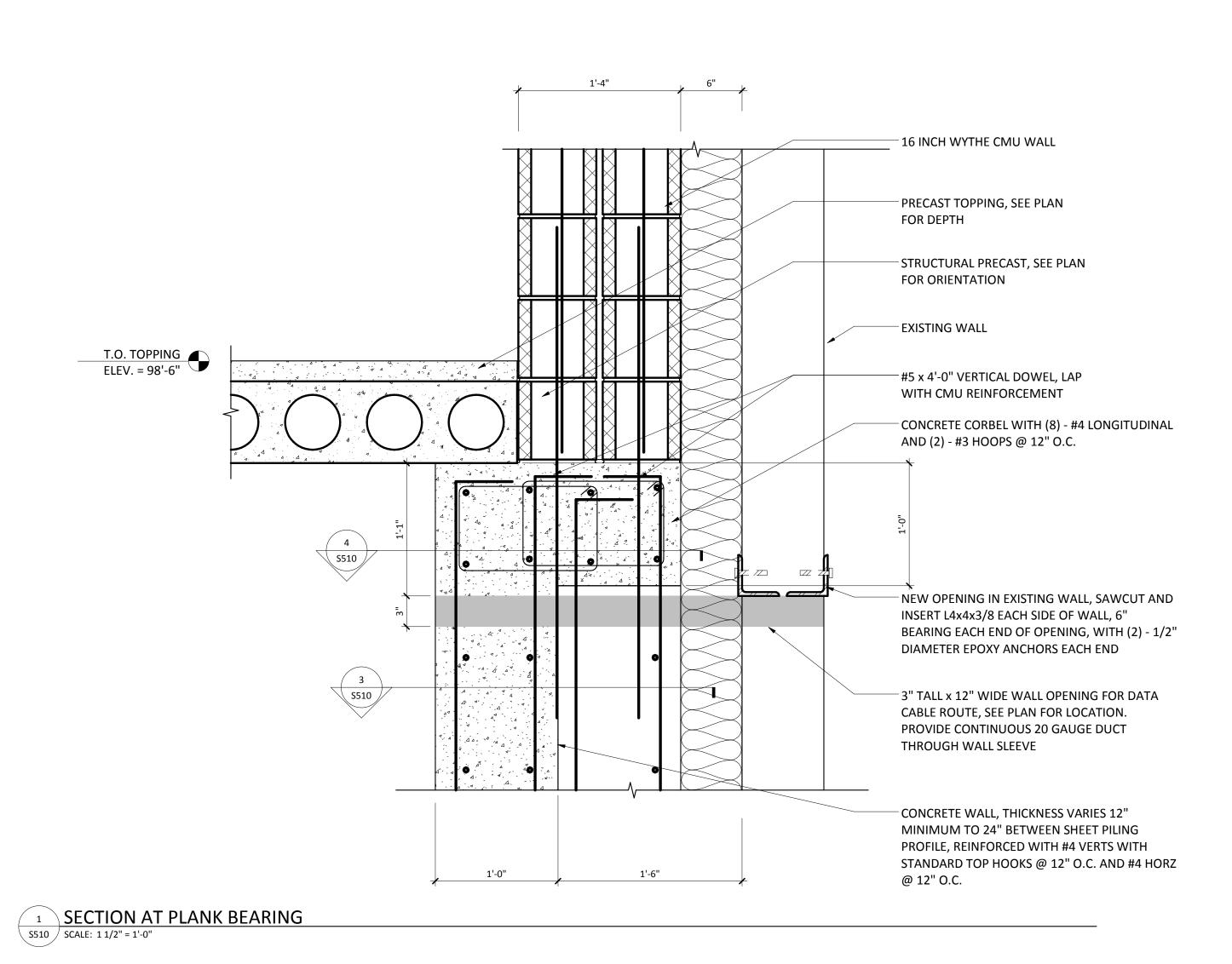
BUILDING NO
CHECKED BY
BA

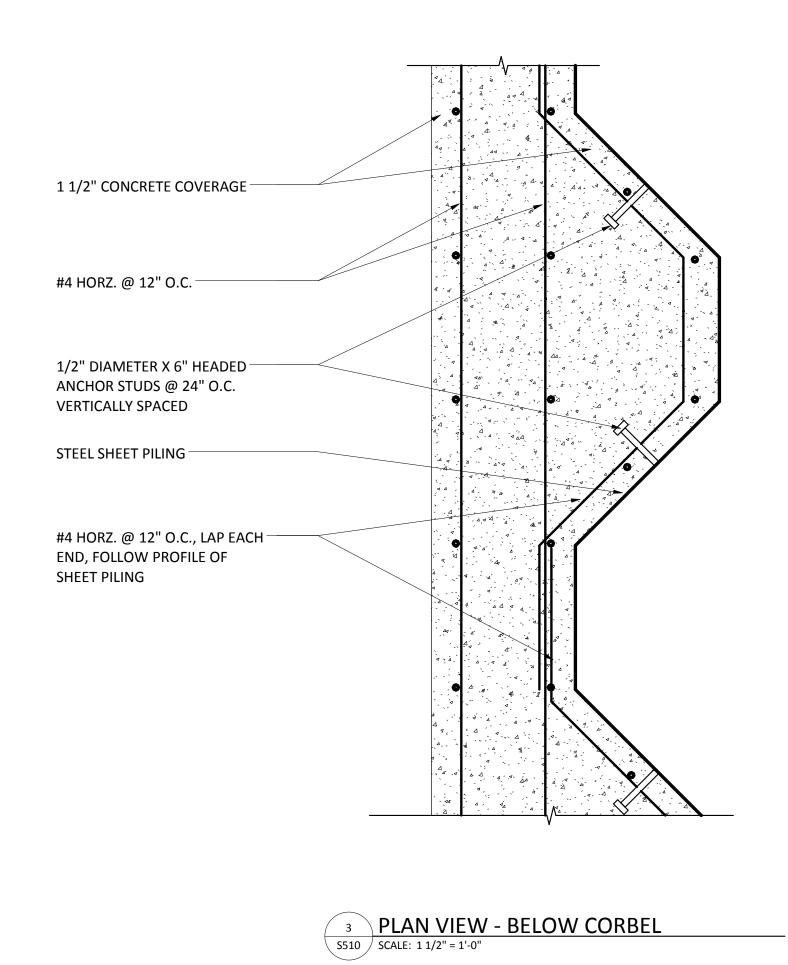
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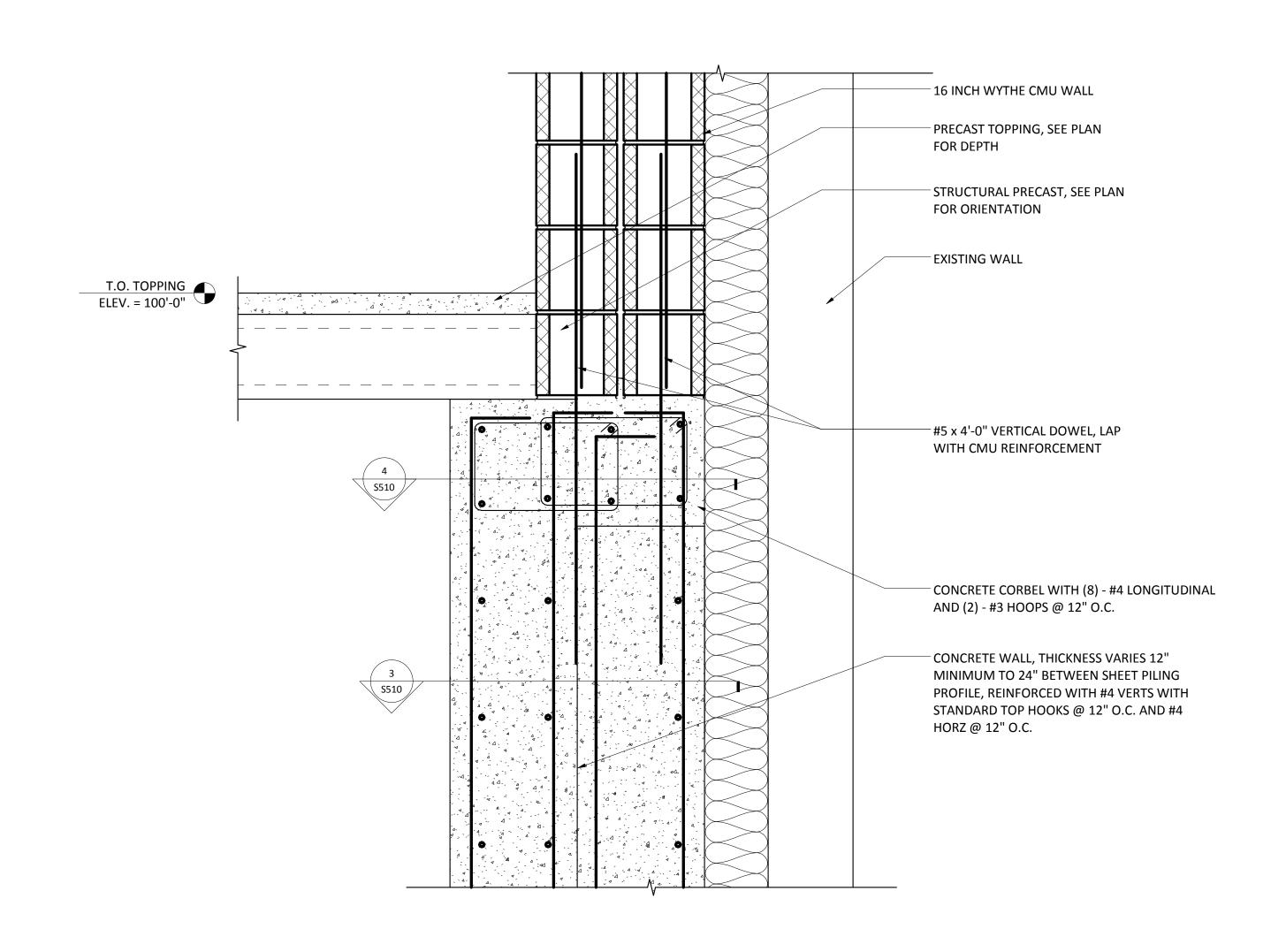
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CRAWING NO.
S501



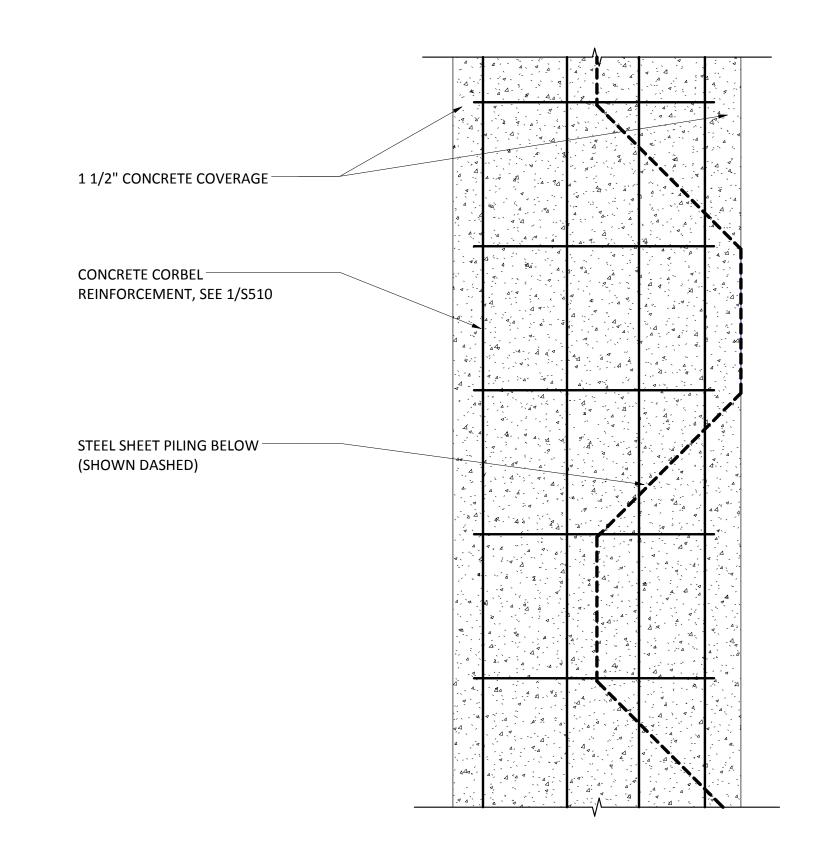






SECTION AT PRECAST TO EXISTING

SCALE: 11/2" = 1'-0"

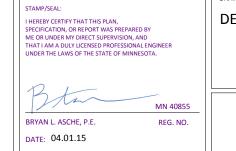


4 PLAN VIEW - AT CORBEL
S510 SCALE: 1 1/2" = 1'-0"

2 5

CONSTRUCTION DOCUMENTS 100%





PROJECT TITLE
CONSTRUCT NEW IT CENTER
FOR HEALTHCARE
TECHNOLOGY
MANAGEMENT EXPANSION

BUILDING NO

CHECKED BY
BA

CAD FILE
XXX

LOCATION
VA MEDICAL CENTER
ST. CLOUD, MN 56303

DATE
04.01.15

PLOT SCALE
AS NOTED
PROJECT NO.
656-14-246

DRAWN
AW

CAD FILE
XXX

DRAWING NO.
S510
DWG. X OF

